Bird status changes - and changes in environment - in the Chignecto Isthmus region of Atlantic Canada

Anthony J. Erskine and Reid McManus, Jr.

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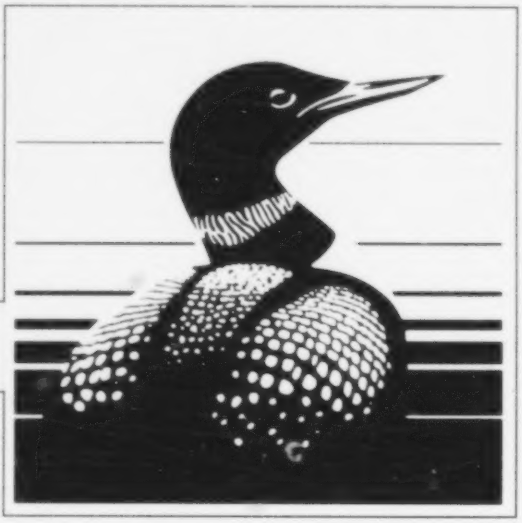

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Bird status changes - and changes in environment - in the Chignecto Isthmus region of Atlantic Canada

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ABSTRACT

This account summarizes and interprets distribution and occurrence data on birds in the Chignecto Isthmus region of the Maritime Provinces between 1930 and 2000. This area is one of two or three with longest duration of bird study in the Maritimes, and probably has the longest data series allowing (quasi-objective) assessment of trends in abundance of common species. The region is central within the Maritimes, including the Isthmus and its contrasting shores (vs. only part of Fundy shore covered in earlier local summaries).

Separate chapters note principal observers and information sources, describe habitats, and explain presentation of data. The annotated list - a summary for reference - provides separate data summaries for 1981-2000 and for earlier years, for Bay of Fundy and Northumberland Strait sides of the isthmus. Data are given for 308 species, including 142 breeding, 70 wintering, 85 vagrants (<10 records overall); some of the latter are considered hypothetical (and some others probably should be).

Data on status trends over time are summarized in view of likely causes: climatic changes, other natural environmental changes, cultural changes, commercial forestry changes, wildlife management changes, recreational changes. Most species changes not explained by one (or more) of these causes in the local scene are believed to arise from similar changes acting elsewhere in the species' ranges. Differences between species occurrence in the Fundy and Strait subregions mostly may be explained in terms of differing availability of preferred habitats, especially tidal regimes, freshwater wetlands, grasslands, forests, and urbanization.

RÉSUMÉ

Le présent compte rendu résume et interprète les données sur la répartition et l'occurrence des oiseaux de la région de l'isthme de Chignecto, dans les provinces Maritimes, de 1930 à 2000. L'isthme figure parmi les deux ou trois régions des Maritimes où les oiseaux ont été étudiés depuis le plus longtemps et qui comptent probablement la série de données la plus longue, ce qui permet une évaluation (quasi objective) des tendances au chapitre de l'abondance des espèces communes. La région visée, qui se trouve au centre des Maritimes, comprend l'isthme et ses différentes côtes (dans les résumés locaux antérieurs, seule une partie du littoral de Fundy était visée).

Chaque chapitre renferme des précisions sur les observateurs principaux, la source des données, les habitats et le mode de présentation de l'information. La liste annotée – un document de référence sommaire – résume de façon distincte les données obtenues pour 1981-2000 et pour les années antérieures de chaque côté de l'isthme, soit la baie de Fundy et le détroit de Northumberland. Les données visent 308 espèces, dont 142 nicheuses, 70 hivernantes et 85 errantes (<10 observations en tout); dans certains cas, la présence de ces dernières espèces est considérée comme hypothétique (et celle de certaines autres espèces devrait probablement l'être aussi).

Les données sur les tendances démographiques à long terme tiennent compte des causes probables : changements climatiques, autres changements environnementaux naturels, changements culturels, évolution des pratiques forestières commerciales, évolution des pratiques de gestion de la faune, changements récréatifs. La plupart des changements démographiques qui ne peuvent pas s'expliquer par une (ou plusieurs) de ces causes à l'échelle locale auraient été engendrés, croit-on, par des changements semblables qui se feraient sentir ailleurs dans l'aire de répartition des espèces.

Les différences observées entre les profils d'occurrence des espèces dans les sous-régions de la baie de Fundy et du détroit de Northumberland principalement peuvent s'expliquer par les variations dans le nombre d'habitats de prédilection, en particulier les régimes tidaux, les terres humides dulçaquicoles, les prairies et les forêts, de même que par le degré d'urbanisation.

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1. INTRODUCTION

This is one of the first bird books in the Maritimes, and in Canada, to summarize population changes over a 70-year period - with supporting details. It began as an update to George Boyer's *Birds of the Nova Scotia - New Brunswick border region* (1966). Hinrich Harries (then professor at Mount Allison University) urged summarizing changes in bird populations since Boyer's time, as well as updating status. Previous regional summaries of changes in bird numbers (Christie 1979; Erskine 1992) spanned the entire Maritime Provinces, over longer time-frames, but with minimal detail for any smaller region.

Boyer's publication, based on his (1951) M.S. thesis, focused on marshlands around the head of Cumberland Basin, with adjacent uplands, a compact area with limited variety of habitats - probably all the area he studied intensively in 1947-50. That was among the earliest local bird lists in the Maritimes, preceding recent provincial summaries (Squires 1952; Tufts 1962; Godfrey 1954). The existence of a bird list with local focus encouraged further study here, and local bird records now span 75 years. Boyer's account is still useful - but its original form is partly outdated, and it did not extend to many local areas now visited regularly. With breeding bird atlases available for the Maritime Provinces and adjacent political units, and current observations widely available on Internet, the roles of regional bird publications have changed since 1966. Information was formerly too sparse for useful generalization, but the present mass of unstandardized observations is seldom summarized usefully. There is still a need for digests of collected data, including sufficient detail to illustrate patterns.

The local annotated list also may be useful for wider reference. The central location of our region in the sedimentary lowlands of the Maritimes (see Erskine 1992, Figure 4) may allow this account to represent that wider area, which lacks a comparable summary (that for Prince Edward Island differs substantially from mainland areas). Defining bird population trends here over a 70-year period also documents the pervasive effects of unconsidered human actions on birds that share this region with us.

This book thus combines several objectives:

- Further update of bird status in Boyer's original area, with
- First summaries of bird status in some adjoining areas:
  - to west and southwest, and to southeast, on the Bay of Fundy side of the isthmus;
  - to northeast and east, from Shemogue to Port Philip, along Northumberland Strait;
  - little-studied hinterlands between Fundy and Strait shores.
- Discussion of changes in overall status, drawing on long-run data-sets recently available.

An 'annotated check-list' approach was unavoidable, with data for each species summarized geographically and over time. Preliminary chapters summarize bird study in the region, and introduce major observers whose activities and notes provided basic information on local birds. Environmental changes, often well-correlated with changes in bird numbers, are also discussed. A later chapter summarizes possible causes for the bird population changes that were suggested by the assembled data.

1.1 Local bird study

In 1947, Robie Tufts (1884-1982), Chief Migratory Birds Officer for the Maritime Provinces since 1919, retired. The federal Migratory Bird Protection Section (renamed Dominion Wildlife Service 1 November 1947, Canadian Wildlife Service - CWS hereafter - from 1950) relocated Tufts' position to Sackville, New Brunswick, where George Boyer took up its responsibilities that autumn. This study thus had its origin in Boyer's placement here.

Boyer was not the first to study birds locally. Biologists from the United States government visited Canadian breeding areas of migratory game birds annually from mid-1930s. In the Maritimes, they were directed to the N.S.-N.B. border marshes as a regionally important area. Harold Peters visited this area as Atlantic Flyway Biologist, and his reports (unpubl., in CWS files) may have influenced placement of the CWS office in this region. Boyer's early work treated waterfowl and their ecological associations in lowlands adjoining the upper Bay of Fundy. He drafted from his M.S. thesis a manuscript which, with minor updating, was published after his death (Boyer, 1966). That summary of local bird status was reprinted, with updating (in appendix) in 1971. Another update was compiled in 1981 (S Tingley, unpubl MS). Much information in those documents arose from a perception, conveyed by local CWS staff to then-distant supervisors, that bird conservation depended upon ongoing field knowledge of birds - not merely brief, one-time, investigations. CWS managers accepted that concept, though insisting that time and effort required should not delay tasks then accorded higher priority. CWS work time usually was fully occupied, but some biologists also devoted much 'free' time to birds. Much CWS bird work, like Boyer's 'border birds MS', did not reach publication during an employee's working life.

Four years after Boyer left Sackville in 1956, A.J. (Tony) Erskine arrived, replacing one of (then) two CWS biologists here. As an amateur, he already had organized Christmas bird counts, collected nest records, and conducted mapping censuses of breeding birds, in Nova Scotia, Ontario, and British Columbia. His involvement in volunteer bird-counting activities continued throughout his CWS career. Between 1968 and 1977, he was the first CWS national coordinator of non-game bird population studies. On return to Sackville in 1977 as a CWS manager, he resumed a part in local bird study. By 1968, others in CWS-Sackville accepted organized birding as potentially useful, and enjoyable. Earlier initiatives had brought to the local scene Christmas bird counts, nest-recording and the Breeding Bird Survey. Most biologists and technicians employed by CWS after 1970 had been exposed to study of birds in general, not only game species. Few counted 'birding' as a major recreation, and fewer maintained systematic files of personal bird records. Allan Smith kept up CWS involvement in bird recording after Erskine moved to Ottawa in 1968.

Southeast New Brunswick had also one devoted bird student whose enthusiasm had emerged independently. From 1928, Reid McManus of Memramcook kept detailed records of birds he encountered, mainly near his home. After Harries urged assembly of a new publication on 'border birds', with emphasis on long-term changes in status, Erskine convinced McManus that his observational data could be valuable. In 1998-99 McManus brought in several large cartons of field notebooks, spanning 70 years! Extracting data for computer entry provided fascinating glimpses of rural and village life here as well as of birdlife, over more than a half-century. McManus was not the only amateur bird-watcher to emerge locally. After 1960, bird-counting initiatives, especially

Christmas Bird Counts, encouraged local volunteers to team with professionals, and some volunteers reported their sightings. Evelyn Lowerison Coates, Constant Desplanque, and Katherine Bunker-Popma are outstanding among volunteer birders who emerged here later. As bird-watching became more 'respectable', starting in mid-1950s, provincial and regional groups of like-minded people assembled, and produced magazines to record their findings. Such publicity encouraged volunteers 'from away' to visit the Chignecto area, and their sightings provided many 'exotic' records of recent years (N.S. Bird Society and N.B. Federation of Naturalists).

1.2 Contributors and other observers

Individuals are listed in the order they began local observations, followed by organizations.

Reid McManus, Jr. (1913-) Reid McManus was born and lived all his life in Memramcook. Fascinated with birds from youth, he was educated (B.A. 1935) at St. Joseph's College there (later merged in Université de Moncton). His dream of a career in ornithology was thwarted by the Great Depression, but he kept notes on local bird sightings, often on a daily basis, alongside his work on local family properties (farm, sawmill, lumbering, real estate). With prosperity after 1963, bird-watching became a nearly full-time avocation for him, and that continued to the present (this written 2000), despite age-enforced limits on mobility.Through 1974, most of his observations were in the Memramcook Valley between Calhoun and Upper Dorchester, especially around Memramcook village and Memramcook Lake. Later he shifted focus to migrating shorebirds at Grande Anse (aka Johnson Mills or Bucks Flats) 10 km farther south, beyond Dorchester Cape.

Harold S Peters (1902- ?) Harold Peters was born in the U.S.A., educated in entomology, and worked for most of his career in U.S. Fish and Wildlife Service (at first named Bureau of Biological Survey). As Atlantic Flyway Biologist, he visited the Maritimes annually 1937-47 to monitor status of migratory game birds, especially waterfowl. [With T.D. Burleigh, he also assembled data for 'The Birds of Newfoundland' (publ. 1951)]. His local field studies, with John Tingley, provincial game warden of Aulac, were mostly in the Midgic and Missiquash marshes.

George F Boyer (1916-60) 'Joe' Boyer, born in Woodstock, N.B., with degrees from U.N.B. and U. Illinois, was the first Canadian wildlife biologist stationed in Sackville. He was also active in duck hunting and in banding songbirds, outside his main studies on waterfowl. The breadth of his interests in the natural world was only exceeded by the demands made on such a 'lone ranger' by his employing agency, to which he never learned to say "No!". He left CWS and Sackville in 1956, in frustration, and died some years later, with most of his studies still unpublished. Some of his early work here was summarized in his M.S. thesis (1951), from which he extracted a draft MS (published posthumously, 1966). Most of his local field work was in the 'Border marshes'.

Anthony J Erskine (1931-) 'Tony' Erskine was born in England and grew up in Wolfville, N.S.. Birds were an early and lasting enthusiasm, but he studied chemistry at Acadia (B.Sc. 1952) and Queen's (Ph.D. 1957) universities before turning to biology (M.A. 1960 at U.B.C.). He joined CWS in Sackville in 1960, re-located to Ottawa in 1968, and returned in 1977 to Sackville, where he retired in 1991, with CWS 'Emeritus' appointments to the present. His interests included all birds, though at times focused on waterfowl, forest birds, or urban birds. He kept detailed personal records as well as official summaries, and published extensively (most of his published accounts had wider than local scope). He always encouraged surveys by volunteers, including Christmas Bird Counts, nest records, Breeding Bird Surveys, and the Maritimes Breeding Bird Atlas.His field work, official and volunteer, spanned the Chignecto Isthmus region, which here was defined largely by his own and McManus's field activities. He oversaw publication of Boyer's draft summary, the precursor of this publication, which he also compiled.

Evelyn Lowerison Coates (1927-) Evelyn Coates was born at Dorchester, N.B., trained in nursing, and worked mainly in Amherst, N.S. (1950?-77). After her husband's death, she retired in Fenwick. For years (1960?-75), she was 'local organizer' of the bird enthusiasts in the Amherst area, with whom she began the local Christmas Bird Counts (later adopted by CWS).

Allan D Smith (1942-) Al Smith has lived all his life in Sackville (except 1965-67 at Acadia University, M.Sc. 1968). He worked for CWS 1967-97, mainly in the habitat program (and as acting regional director 1975-78). Under that umbrella, he assembled bird (and other) data on local National Wildlife Areas, continued local Christmas Bird Counts and the Maritimes Nest Records Scheme, and encouraged CWS staff to report arrival dates and unusual bird sightings on office lists. The 1971 and 1981 updates to Boyer's MS were his initiatives, and Stuart Tingley (below) was an early protegé of his. His official field activities ranged widely across the region, though focused on NWAs.

Constant Desplanque (1916-) Con Desplanque came to Canada from his native Holland after WW2, and worked as a dykeland engineer for the Maritime Marshlands Reclamation Act unit and successor agencies, while living in Amherst (Figure 1). His interest in birds emerged gradually, and in 1970s and 1980s he was among the most active field observers in the area, before age and ill-health restricted his travel. He regularly reported sightings to provincial bird/nature outlets. His field observations focused especially on the Amherst Point area, including the MBS and John Lusby marsh impoundments.

Stuart I Tingley (1953?-) Stu Tingley was born on the Aulac ridge, and attended school and university in Sackville. A meeting with Al Smith, when Stu was 17, ignited his latent interest in birds, and within a few years he became recognized as a 'super-observer', eventually finding employment as a (worldwide!) birding tour guide.

Figure 1. Con Desplanque, "on the bottom of the sea" off Fort Beausejour, 27 May 1990.

Latterly he made his home in Moncton and then Shediac, but he returns to this area for birding each year. His sightings feature regularly in both N.B. and N.S. bird reports. For 15 years (after Evelyn Coates and Con Desplanque) he organized and expanded the Amherst CBCs. Before his move to Moncton (1983), he travelled all over the local region, with particular attention to Amherst Pt MBS, Cape Jourimain NWA, and the Tidnish-Port Philip shores.

Katherine Bunker-Popma (1948?-) Kathy Popma, originally from Montreal, came to Sackville from Newfoundland (with husband and children) in 1976. Family cares slowed her entry to local birding, and she joined Tony Erskine on Christmas Bird Counts first in 1984. Creation in 1988 of the Sackville Waterfowl Park, literally over her back fence, gave her a convenient venue for systematic observation, whi[illegible] she continued ever since. Recently, she undertook seaduck surveys around the new P.E.I. bridge, and, with Ruth Miller, regular bird surveys on the Tantramar marsh throughout each winter. Kathy is the most active volunteer observer, having no formal links to CWS, now resident in Sackville.

Nova Scotia Bird Society (NSB) The N.S. Bird Society was founded in 1955, and from 1964 published a magazine (*N.S. Bird Soc. Newsletter*, now *Nova Scotia Birds*). This outlet for province-wide bird reports stimulated coverage of many little studied areas. Northwestern Cumberland County received scarce and local attention until reports by Desplanque and Tingley in 1970s attracted visitors, especially to Amherst Point. Observers from N.S. (mostly Halifax area) who later contributed many sightings noted herein included (alphabetically) Roger Burrows, David Currie, Fulton Lavender, Ken McKenna, Ian McLaren, Bill McNutt (also many nest records), Blake Maybank, Eric and Anne Mills, and Jim Taylor (also many nest records). Many others (named in text) contributed a few records each, mostly of unusual occurrences. Most sightings noted in NSB were at Amherst Point or along Northumberland Strait.

New Brunswick Federation of Naturalists (NBN) The N.B. Federation of Naturalists was formed in 1972, to link activities and interests of 6 (now 13) local clubs in that province. Its outlet, *N.B. Naturalist*, continued summaries of nature observations - earlier published in *Nature News* (of the New Brunswick Museum, started 1953). The Chignecto Naturalists Club, meeting in Sackville but serving also the Amherst area (in N.S.), emerged in 1973 as a result of local interest in the (N.B.) Federation. Smith and Tingley were the first important local contributors to *N.B. Naturalist*. Observers from elsewhere in N.B. (or beyond) who provided many local records included (alphabetically) Chris Adam, Gordon Burns, David Christie (often with Mary or Mike Majka), Alain Clavette, Brian Dalzell, Davis Finch (from U.S.A., when regional editor for *American Birds*), and Andrew MacInnis. Many others named in the text provided a few records each. Cape Jourimain was the main local focus of visitor activity in N.B.

Canadian Wildlife Service (CWS) Professional, technical, and seasonal staff of CWS also contributed many records used in this publication. Besides Boyer, Erskine, and Smith (noted above), Peter Barkhouse (also nest records), Charlie Bartlett, Chris Ellingwood, Peter Hicklin, Ron Hounsell, and Don Kimball (nest records) provided many reports, and most also took part in CBCs, as observers and sector-leaders. Others (named in text) contributed a few records each.

2. THE CHIGNECTO ISTHMUS REGION

2.1 Defining the area

Bird data available for this study covered various areas, in which coverage and habitats varied greatly between periods. The 70+ years spanned by our bird records saw dramatic changes in the ways local people used their environments. The birding patterns of the various observers, as well as the habitats used by birds, helped in the arbitrary definition of our study area. The total area (Figure 2) is roughly rectangular, about 60 km E-W by 40 km N-S, the perimeter including (clockwise, from NW corner) Calhoun, Shemogue, Cadman Corner, Cape Tormentine, Port Elgin, Northport, Port Philip, the Leicesters, Athol, Joggins, Cape Maringouin, Beaumont. (For details, consult NTS map sheets 21H 9 (part), 10 (part), 15 (part), 16; 21I 1, 2 (part); 11E 13 (part); 11L 4 (part).)

2.2 Information sources for parts of the area

Figure 3. shows sub-sections of the area, as discussed below.

Boyer's original 'border region' - Comprised the lowlands extending north from Cumberland Basin between Sackville, N.B., and Amherst, N.S., with adjoining uplands. That area, roughly 20 km N-S and 15 km W-E, includes the largest grouping of open lands in the Maritimes, and a considerable variety of natural - and latterly also artificial - wetlands. The continued presence here of the Maritimes CWS office furthered bird study of varying intensity from 1947 to the present.

McManus in the Memramcook valley - A similar range of habitats, though Memramcook Lake was the only significant natural wetland. His main Memramcook area (Figure 1), studied in 1928-88, adjoined Boyer's study area to the west, extending roughly 15 km N-S by 10 km W-E. In later years (1973-2000) he studied mainly the Grande Anse area, 6-10 km south of Dorchester, comprising 4-5 km of beaches, with mudflats to seaward and woods inland.

Erskine's birding from Sackville - Regularly extended 50 km to east and northeast, but only 20 km in other directions. Frequency and intensity of his wider-ranging coverage was less than peaks in activity by Boyer and McManus. It continued at all seasons in 1960-68 and 1977-present. Areas visited beyond Boyer's and McManus's core areas included Grande Anse shore (from 1961, before as well as during McManus's study), and shores of Northumberland Strait and Baie Verte.

Three local Christmas Bird Counts - Started in 1960 and 1961 (Boyer, with his wife, made a few counts around Sackville, but his data survived only for 1948). The Sackville circle (from 1960) closely matched Boyer's 'border region' (a). The Amherst count began as part of the 1961 Sackville count; its data were reported separately, so a new circle was set up, with overlap area divided along inter-provincial border. For 15 years, coverage at Amherst was by the few observers from that area, with only sporadic assistance from Sackville. After CWS people reorganized the Amherst count in 1977, that circle was shifted southward 2-3 km. The Cape Tormentine count began in 1961 with help from the (then new) Moncton club, but was always a CWS-Sackville initiative. These counts comprise birds detected on a single day each year, sometime between 13 and 30 December, thus representing early winter status.

Other major sources drew bird data from all parts of our region.

The Atlas of Breeding Birds of the Maritime Provinces (Atlas for short; Erskine 1992) - A collaborative effort by the Nova Scotia Museum, CWS, and birders of the Maritimes, in 1986-90. In those years, all 10x10km squares of the UTM grid in the local region - from Shediac and Joggins to River John (extending beyond the scope of this paper to east and northwest) - were surveyed, providing a 'snapshot in time' of distribution of breeding birds. Many 'hinterland areas' within our region were little sampled except during Atlas work, but some, studied first for the Atlas, were also visited later.

The Maritimes Nest Records Scheme (MNRS, started 1960) - One of several regional programs that assemble nesting data from volunteers and others. MNRS is housed in Sackville (at CWS), and holds over 49,000 cards representing over 200 species. Cards from the local area were examined to supplement Atlas and other data on breeding status.

Breeding Bird Surveys (BBS) - Part of the major bird population monitoring initiative established in 1966 by Chandler Robbins of U.S. Fish and Wildlife Service. Erskine established both the original Amherst route in 1966 and the Jolicure route in 1967. Both routes later were altered, the Amherst route substantially, owing to highway construction, and various observers were involved over the years. Those counts were made on one day each year, in June or early July (the main breeding season for most birds). [Parts of two other BBS routes, established after 1995, lie within our region, but data from those were not used in this study.]

2.3 Biophysical Characterization of Our Area

No one source described the whole area in comparable detail. Roland (1982) and 'The Natural History of Nova Scotia, rev. ed. vol.II. Theme Regions' (D.Davis, S.Browne, eds. 1996) covered the area in Nova Scotia (one-third of total) in detail, but the patterns they presented were not easily extrapolated into New Brunswick. Boyer (1966) summarized only vegetational zonation of his area, following Ganong (1903). For our study, a physiographic characterization seemed more helpful.

We distinguished six subdivisions (units) within our area (from northeast to southwest):

1) Shores and coastal waters of Northumberland Strait;

2) Northumberland plain
(mostly <50 m above sea level), with minor undulations and low ridges;

3) Higher ridges and uplands
(max. 175 m above sea level) - Leicester-Fenwick, Breau Creek-Fairfield-Dorchester Cape, Rocklyn;

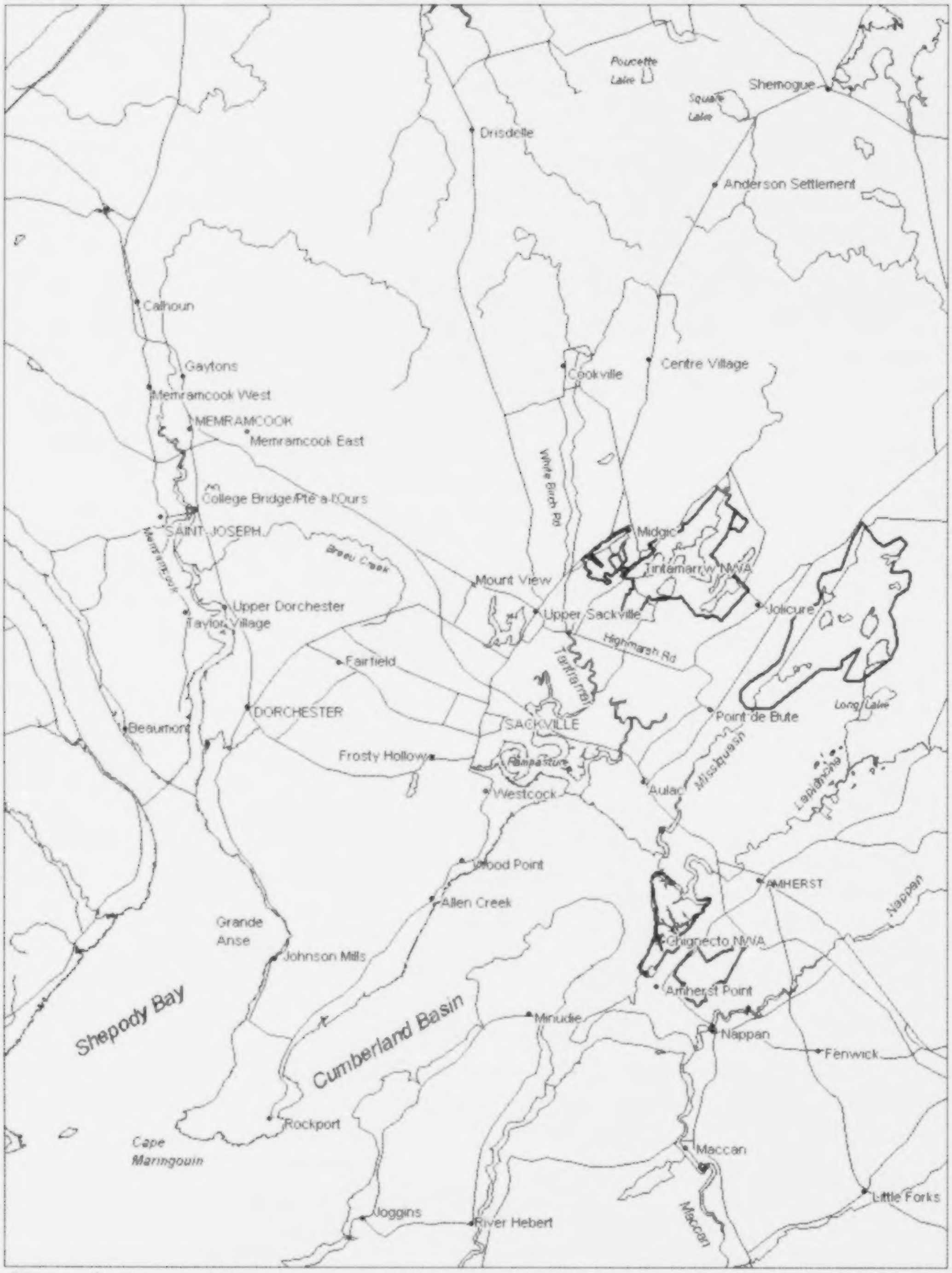
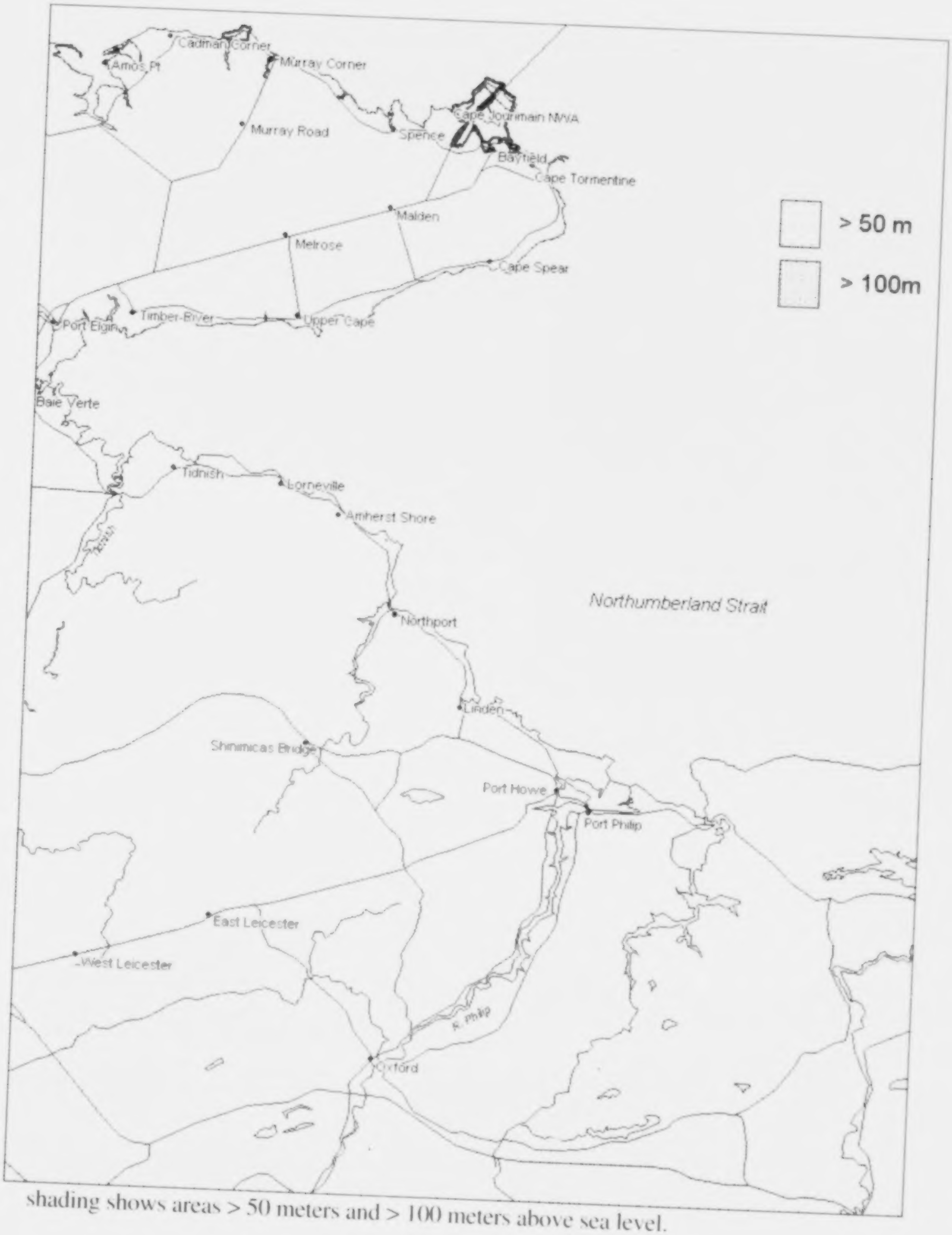
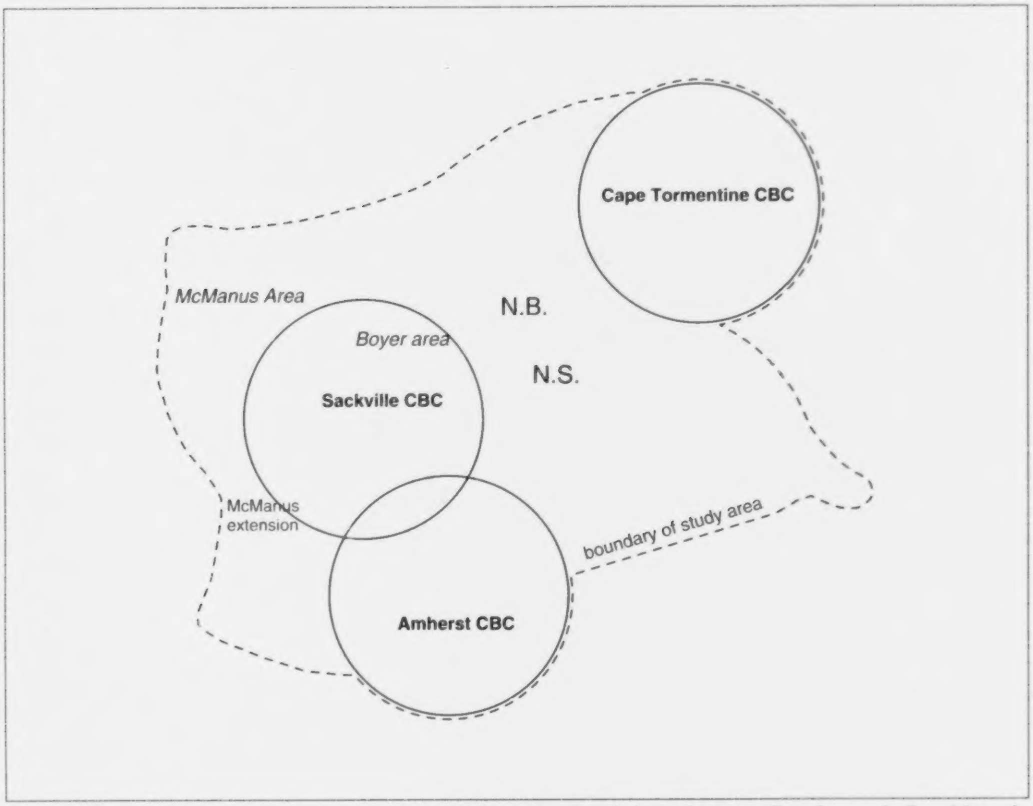

Poucette Lake
Shemogue
Square Lake
Drisdelle
Anderson Settlement
Calhoun
Gaytons
Memramcook West
MEMRAMCOOK
Memramcook East
College Bridge/Pte-a-l'Ours
SAINT-JOSEPH
Memramcook
Breau Creek
White Birch Rd
Cookville
Centre Village
Midgic
Tintamarre NWA
Mount View
Upper Sackville
Jolicure
Upper Dorchester
Taylor Village
Highmarsh Rd
Tantramar
Fairfield
DORCHESTER
Beaumont
SACKVILLE
Point de Bute
Long Lake
Frosty Hollow
Rampasture
Missiquash
Aulac
Westcock
Laplanche
Wood Point
AMHERST
Nappan
Allen Creek
Grande Anse
Johnson Mills
Chignecto NWA
Amherst Point
Shepody Bay
Cumberland Basin
Minudie
Nappan
Fenwick
Rockport
Cape Maringouin
Maccan
Little Forks
Joggins
River Hebert
Maccan

Figure 2. Geographic place-names in Chignecto Isthmus region cited in text. Differential


Cadman Corner
Amos Pt
Murray Corner
Murray Road
Spence
Cape Jourimain NWA
Bayfield
Cape Tormentine
> 50 m
> 100m
Malden
Melrose
Cape Spear
Timber River
Port Elgin
Upper Cape
Baie Verte
Tidnish
Lorneville
Amherst Shore
Northumberland Strait
Northport
Linden
Shinimicas Bridge
Port Howe
Port Philip
East Leicester
West Leicester
R. Philip
Oxford

shading shows areas > 50 meters and > 100 meters above sea level.



Cape Tormentine CBC
McManus Area
N.B.
Boyer area
N.S.
Sackville CBC
McManus extension
boundary of study area
Amherst CBC

Figure 3. The Chignecto Isthmus region, New Brunswick and Nova Scotia as defined herein. Also shown are extent of (smaller) areas covered by Boyer's publication (1966 and later updates) and by McManus's field studies, and of three local Christmas Bird Counts (CBCs).(Note: Area of overlap between Sackville and Amherst CBCs was assigned by province, thus nearly all in Amherst count.)

4) Fundy lowlands
(<30 m above sea level), including dyked saltmarshes, and wetlands at former tide-head such as Memramcook Lake, Tintamarre NWA and Jolicure wetlands, Missiquash wetlands, Long/Round Lakes, Amherst Point wetlands;

5) Fundy 'fog belt' uplands
(30-60 m above sea level), including Minudie/Joggins area and seaward part of Cape Maringouin peninsula;

6) Shores and coastal waters of upper Bay of Fundy
(Cumberland Basin and east side of Shepody Bay).

These units are characterized in more detail, as follows:

Shores and coastal waters of the Northumberland Strait & Northumberland plain (1 & 2) - Underlain by soft red sandstones of Late Carboniferous (Pennsylvanian) age, approaching Permian (as in P.E.I.) to the northeast. Soils in low-lying areas are poorly drained. Forests are of the main Maritimes Lowlands type (Loucks 1962), with spruces and red maple dominant, mostly in early to mid-successional stages after repeated fires, clearing, or cutting. Black spruce and tamarack feature in poorly drained (boggy) areas. Parts of (2) are still 'cleared land', though active farms now comprise a minority of the area. This description applies to (2); (1) is its seaward extension, with eroding sandstone cliffs (Figure 4) and extensive beaches of coarse sands (Figure 5), bordered by sandbars and eelgrass beds exposed to varying degrees at low tides (tidal ranges 1-2.5 m) (Figures 6 & 7).

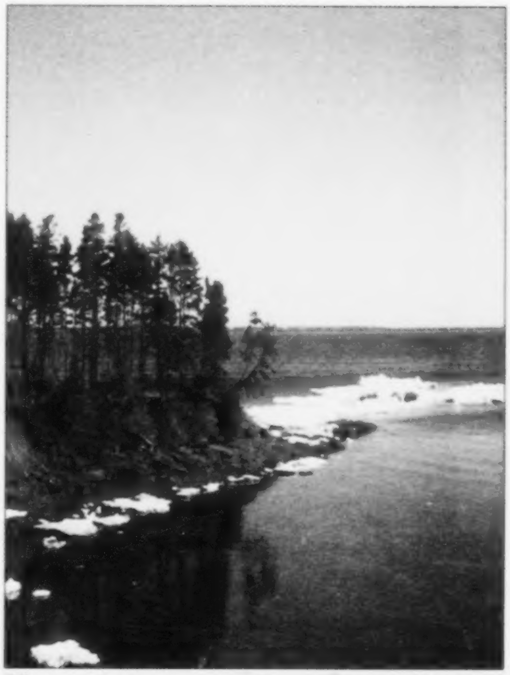


Figure 4. Aggermore Pt., Amherst Shore Provincial Park, 27 March 1999.

Higher ridges and uplands (3) - Heterogeneous in substrate, southwestern upland areas underlain by Early Carboniferous (Mississippian) gray sandstones, grading northeast - from Breau Creek and Leicester - towards Later Carboniferous. With more pronounced relief and some steeper slopes, poorly drained areas are few and small. Forests grade from similar to (2) up towards sugar maple-yellow birch-balsam fir [at elevations >100 m and farther from Fundy coasts - Loucks' (1962) Oxford district, of which small areas appear also in Westmorland County]. Conifer-dominated areas are subjected to recurring cutting for pulpwood, now in high demand. Few former farms are still active, but some sizable areas were converted to commercial ('wild') blueberry production.

Fundy lowlands (4) - Based on Middle-Late Carboniferous sandstones, deeply overlain by marine clays and silts. Gypsum (and salt) deposits occur along the eroded anticline near Amherst Point, contributing to fertility of local wetlands. Former saltmarshes are mostly dyked and (increasingly) drained for agriculture (Figures 8 & 9). Southern edges are under cooling and moist (fog) influence of Bay of Fundy [see (5)]. Extensive peat bogs, often including ponds, border landward margins of former saltmarshes. (4) thus includes one of the largest unforested areas of the Maritimes, with saltmarshes, dyked grasslands and pastures, many natural and artificial wetlands (Figure 10), with poorly drained lowland conifer forest adjoining boggy areas; the open habitats, uniquely extensive in the Maritimes, have distinctive assemblages of birds.

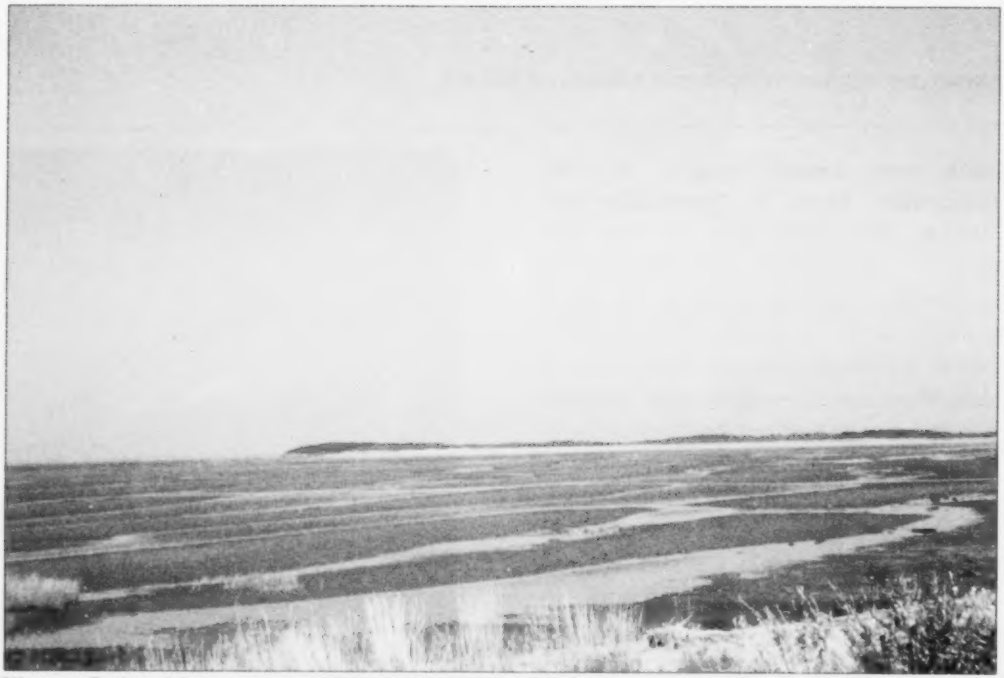


Figure 5. Sandflats, Anns Acres to Jourimain Island, Summer 1991.

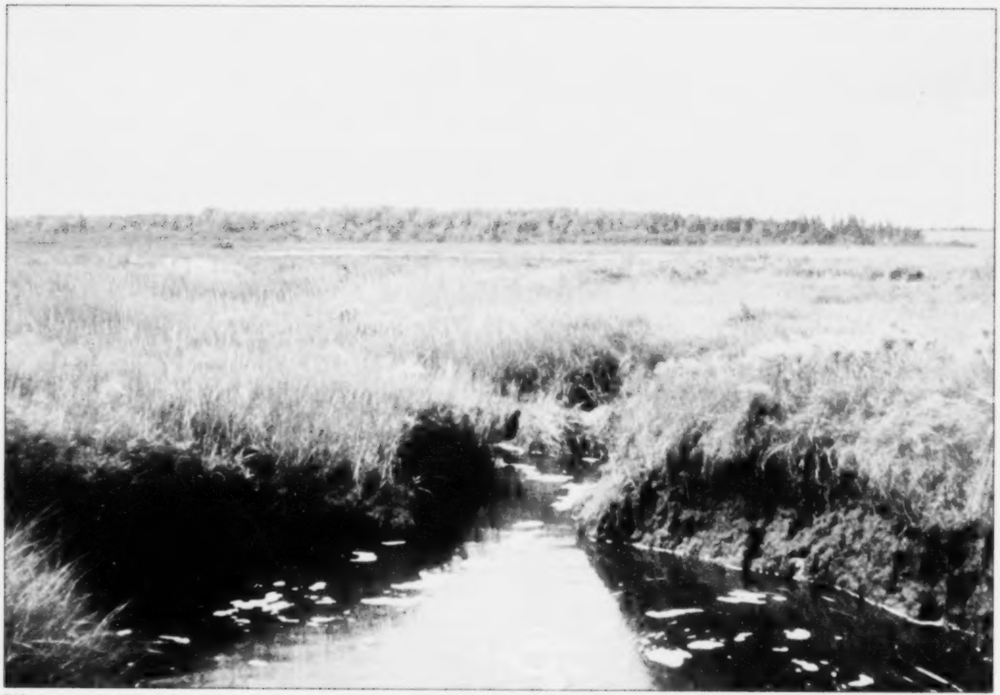


Figure 6. Tidal creek in salt marsh, Anns Acres, 20 August 1992.

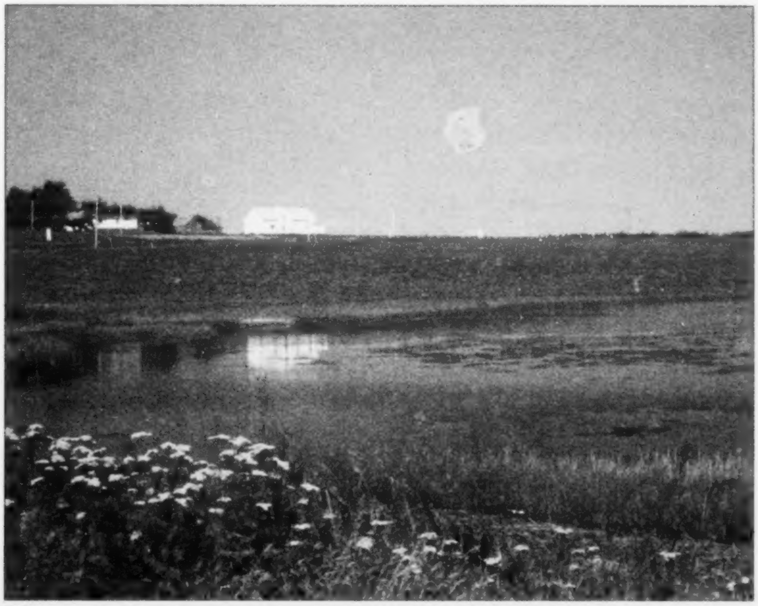


Figure 7. Edge of salt marsh and tidal creek, Linden, 17 August 1985.

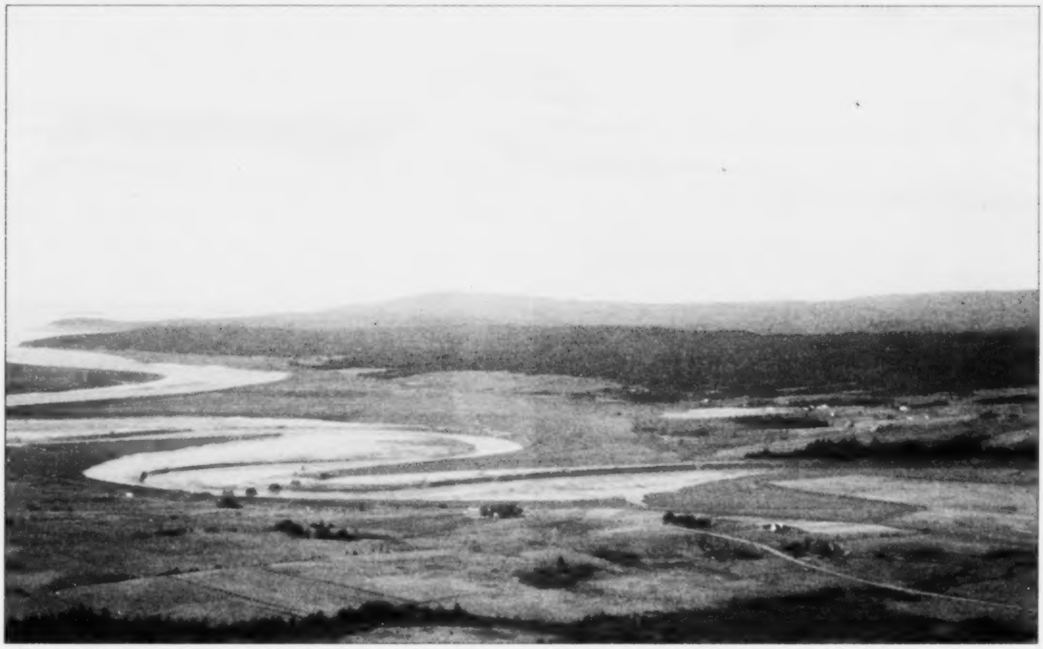


Figure 8. Memramcook River valley, from air (looking SW), 24 August 1978.

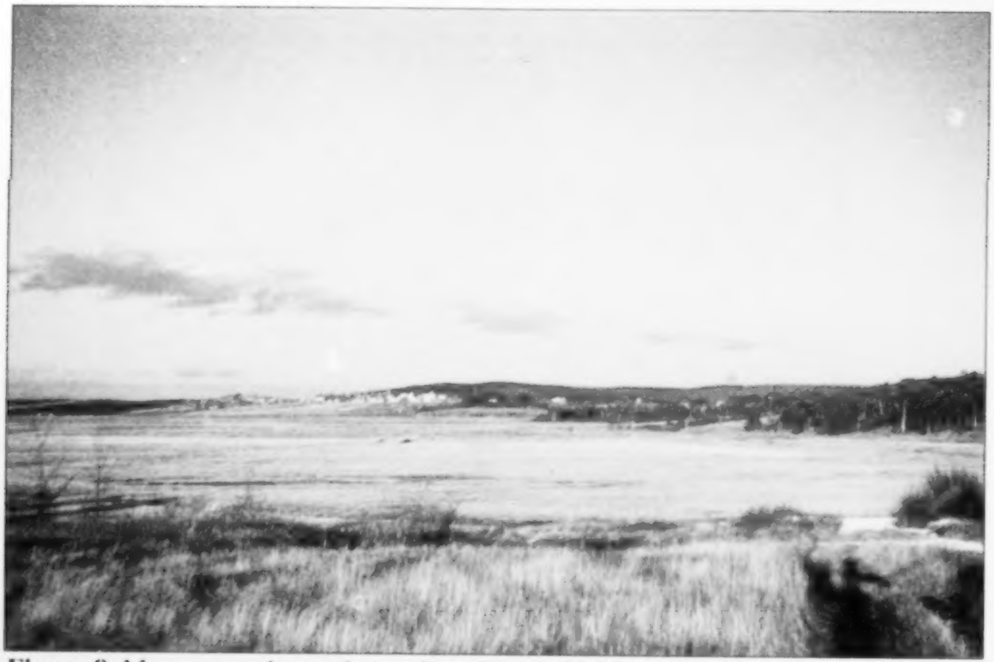


Figure 9. Memramcook marsh near Dorchester. 22 December 1960.

Fundy "fog belt" uplands (5) - Largely underlain by Early Carboniferous (gray) sandstones, including - near Minudie, Rockport, and Beaumont - outcroppings of more resistant rock (formerly worked for millstones). Under frequent coastal fog, soils are often saturated, approaching boggy conditions. Forests are largely of spruces, stunted by boggy soils, and of little commercial interest - the Chignecto District of Loucks' (1962) spruce-fir coast zone (Figure 11 &12). Most former farms are long abandoned, many reverted to woodland.

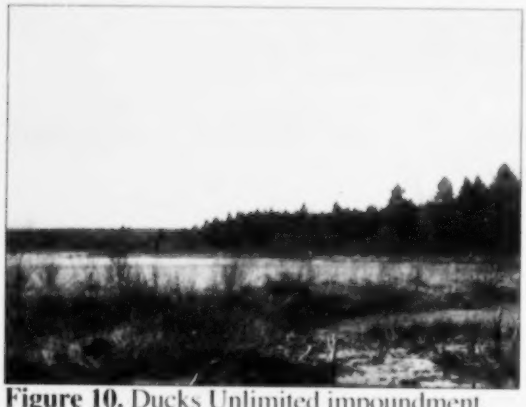


Figure 10. Ducks Unlimited impoundment, White Birch rd. 12 April 1981.

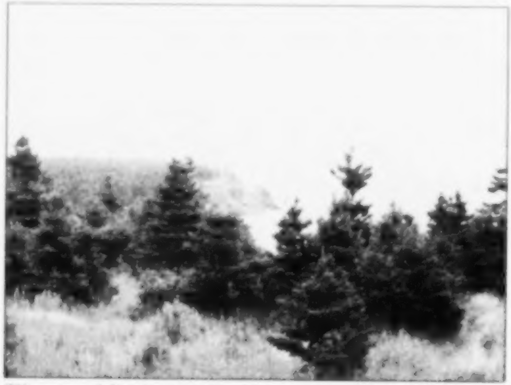


Figure 11. Pasture spruce regeneration, Lower Rockport. 20 August 1978.

Figure 12. Mixed woods near Cape Maringouin, 20 August 1978.

Shores and coastal waters of upper Bay of Fundy (6) - The seaward continuation of (6), with wide intertidal mudflats at Grande Anse (up to 2 km wide at low tides) (Figure 13), Rockport (Figure 14), and Minudie. Shores with shallow gradients have sand or mud beaches, contrasting with rockbound coasts elsewhere (Figure 15). The macrotidal regime (10-13m range between low and high tides) and strong tidal currents cause continuing erosion of shorelines, giving silt-laden waters of little importance to marine birds.

2.4 Environmental Changes in the past 75 Years (see also D.S. Erskine, 1968)

The natural environment was always changing, whether or not people were there to note changes. Major changes mostly occurred over geological time-frames, and only effects of sudden adjustments, such as asteroid collisions, earthquakes, or volcanic eruptions (none frequent in our area or time), might be detectable in periods as short as that considered here. The consensus is that after the last glaciation ended (10-12,000 yr before present) coastlines in the Maritimes rose, relative to sea-levels, until perhaps 2000 years ago. The earth's crust rose as the weight of glaciers was removed, while the seas rose (more slowly) through addition of melt-water. Recently, lands here subsided - or seas rose, as evidenced by increasing erosion of most shorelines - to chagrin of beach-property owners. Most recent environmental changes that we can recognize originated in human actions, some direct and local, others far away and acting indirectly. These are discussed under effects on major habitats - forests, open lands, wetlands, and human settlements, and then under factors acting on wider scales.

Forests - In much of New Brunswick conifer/mixed forests, the (natural) spruce budworm cycle was the major determinant for centuries. These insects built up as spruce or fir forests matured, until epidemic outbreaks, often extensive, killed off much of the mature forest. Later, regeneration occurred, when insects had collapsed to low (endemic) levels. After 50-100 years, a new forest developed, in which budworms again built up, and the cycle repeated itself. That pattern, described from central and northern N.B., was not certainly applicable in our study area and adjacent regions until recently. Some even-aged conifer stands in our area likely resulted as post-fire succession or after abandonment of marginal farmlands, rather than all resulting from budworm defoliation of former forests. The sequel described below, however, applied generally here, whatever the origin(s) of local forests.

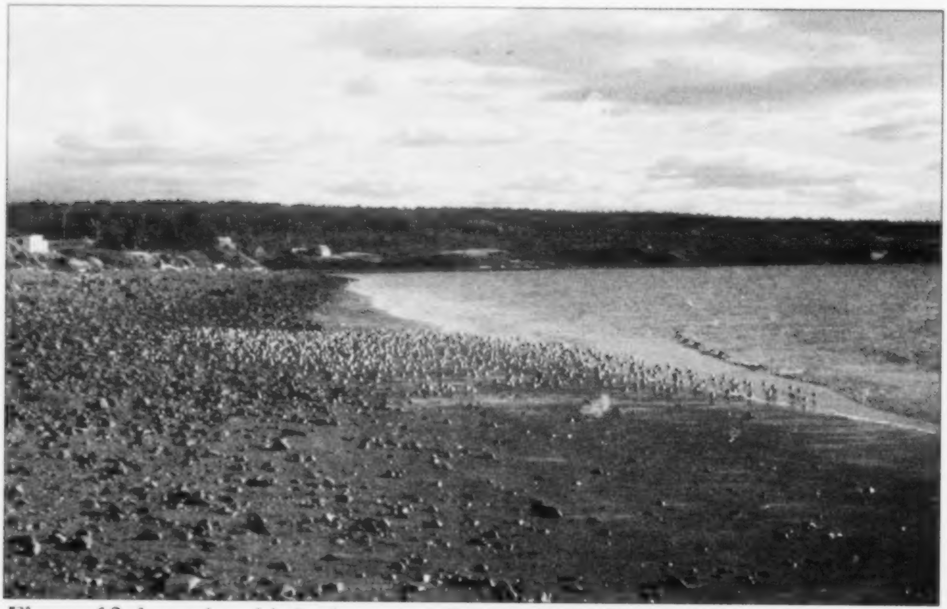


Figure 13. Late shorebird migrants at Grande Anse, 30 October 1977.

Figure 14. Mud-flats at Peck's Cove, Rockport, 19 August 1960.

Extensive maturing forests of spruce and fir were the basis of the pulp and paper industry in the Maritimes, which deplored competition by budworms for the forest-fibre crop. A budworm outbreak spread from Maine (Stewart and Aldrich 1950) into northwestern New Brunswick, where it was subjected to DDT sprayed from aeroplanes in 1952-67. Spraying of DDT at high concentrations killed budworms, with many other organisms including young salmon; however, spraying at lower concentrations, or using other chemicals, often kept budworms in the rapid-growth phase of their cycle for many years. A result was budworm outbreaks over ever-larger areas, including southeastern New Brunswick. Budworms erupted across our area in the warm dry springs/summers of 1974-75, resulting in massive defoliation. 'Salvage cutting' of more accessible stands of dead or damaged timber followed in the next few years. Most (cut or uncut) stands regenerated very slowly, and reforestation (still not extensive) scarcely began locally before 1986. Local forests now are very different - less continuous and generally younger - than those present in 1930 or 1960.

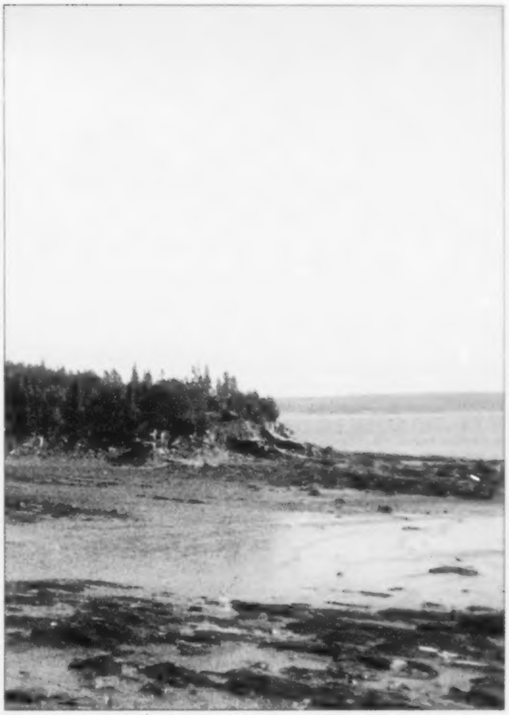


Figure 15. Rock/mud flats at Cape Maringouin, 2 August 1986.

Logging - In this originally forested region, many types of woodland were cleared, partly or extensively, from the time of earliest European settlements (ca. 1670). Logging provided building materials, opened up farmland, and provided open (= defensible) house-sites. Cutting for firewood continued into the present century, and greatly reduced woods - and regeneration - around most settlements. Sawtimber was not abundant here in exportable quantities, though used in local building, including ships, in the 1800s; logging was limited and selective until pulp and paper production became a major industry regionally in the 1920s.

Recent cutting perhaps cleared no more of the region than had been opened-up through marginal farming and firewood cutting in the more distant past, but continuous forest at or approaching maturity probably is scarcer now than at any time since 1960.

Farming - Farming focused first on the treeless 'marshes', which were mostly dyked, to exclude seawater, by the mid-1800s (Figure 16). Those areas were useful mainly for grazing and hay production, the latter encouraged by periodic re-flooding with salt water ('tiding'); soils thus remained too saline for other crops, which were grown only on upland sites cleared of forests. Much dyked land also remained too wet for agricultural use other than rough grazing, and most early schemes for improved drainage were ineffective. From about 1930, some outlying dykelands (Rampasture, Coles Island, John Lusby) were abandoned and reverted to saltmarsh.

The shift from horse-drawn transport to motor traffic, starting about 1920 and accelerating after the Depression and World War 2 (WW2 hereafter), eliminated export of marsh hay as horse fodder. The Maritime Marshlands Rehabilitation Act (MMRA, 1948) saw massive federal subsidies for improving drainage of regional dykelands, and in the same period upgrading of seawalls permanently excluded salt water from those areas. Trees on dykelands (with salt excluded) became

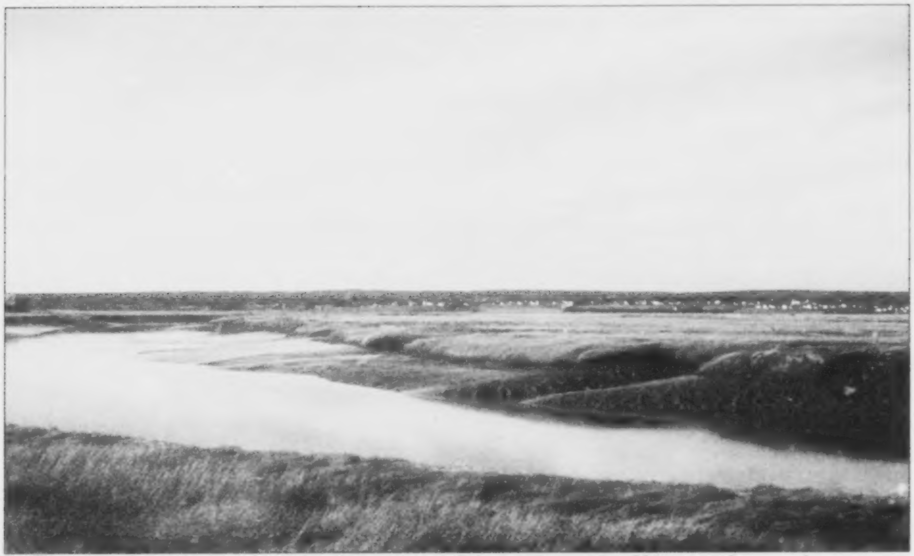


Figure 16. Old channel of the Tantramar River, from the Westcock marsh, 9 November 1980.

apparent from around 1975, and remain scarce. With better drainage, marsh roads were improved, obviating storage of hay in marsh barns, which dwindled greatly in recent decades (Figure 17). Much upland farming regionally was at subsistence levels, most farmers working part-time in other employment; after WW2, people gave up that way of life, and many marginal farms were abandoned, reverting to scrubby woodland. Latterly, some of those areas were converted to blueberry production. Few remaining farms still hold livestock, as improved transport allowed importing of cheaper foodstuffs from elsewhere. All those processes continued through our study period, in which farmlands dwindled in area and in regional importance.

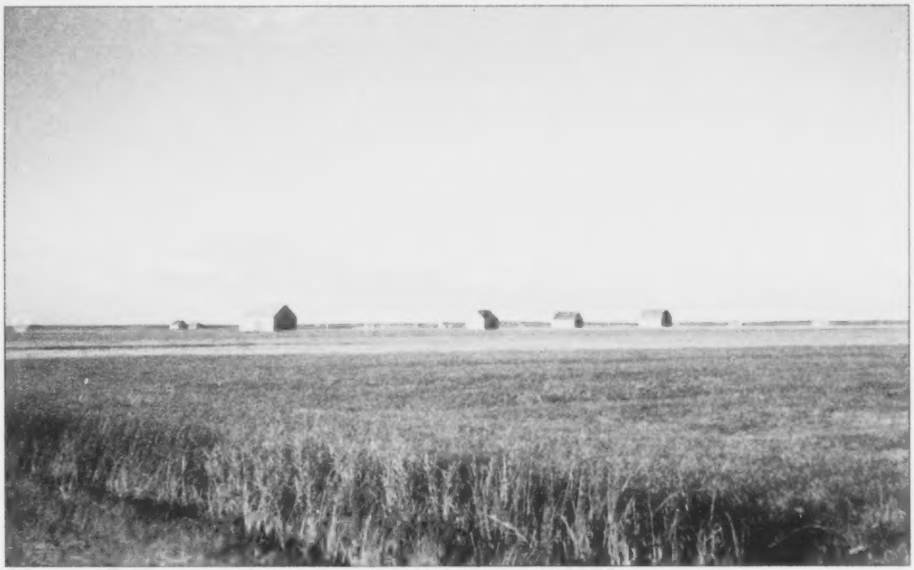


Figure 17. Barns on Tantramar marsh, 11 August 1963.

Wetlands - Early dyking enclosed most (70+% of) pre-settlement saltmarshes, and other drainage reduced areas of most small freshwater wetlands. Some areas again became attractive to waterbirds after World War I, when reduction of hay use (for horse fodder) discouraged costly maintenance of dykes and drainage systems. The work of MMRA (1948-60) cancelled most wetland gains of the preceding 30 years, though leaving John Lusby, Coles Island, and Rampasture tracts as saltmarsh; dams then also closed off formerly tidal reaches of Tantramar, Missiquash, and Memramcook rivers. Drainage of dyked grasslands continued to expand, and now up to one-quarter of their area may be cultivated each year.

Starting here in 1965, Ducks Unlimited Canada (DU) began creating shallow wetlands (hereafter: impoundments) for waterfowl and other marsh wildlife, and latterly also for wild-rice production (Figures 18 & 19). Most early impoundments were on lands owned by CWS or Provincial wildlife agencies; later some were on private lands, as DU accepted ongoing responsibility for maintenance (as well as construction) of dykes and water-control structures.

Most but not all impoundments were in lowland areas with former history of use by water birds. By the 1980s, this area had one of the densest concentrations of DU impoundments in the Maritimes. The Border wetland ecosystems were already recognized as unique in the Maritimes, and that distinction was amplified by the recent concentration of impoundments here.

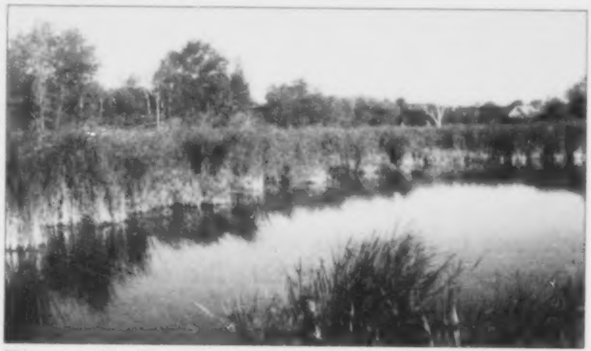


Figure 18. Cattail beds, Sackville Waterfowl Park, 19 September 1994.

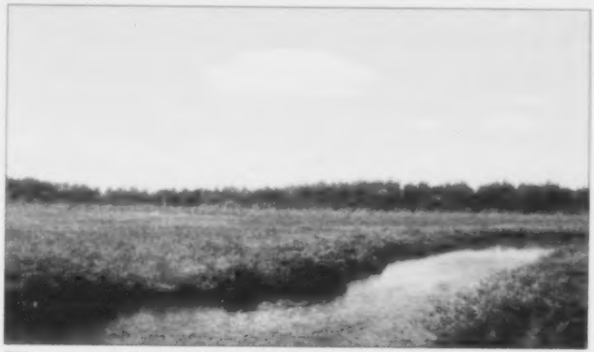


Figure 19. Laplanche River marsh, 6 July 1986.

Social history - Many other changes in the local scene over the last 70 years relate to the social history of the Maritimes, rather than being specific to this area. A shift occurred away from a rural mixed farming-lumbering economy, with local market towns, some with small industries, every 15 km along the (unpaved) main roads, with trains and horses, or coastal ships, as main transport modes (Figures 20 & 21). In its place developed a very different system, where farming is the exception, most people work in 'services' of some kind, often 50+ km distant from suburban homes, and everyone drives motor vehicles everywhere all the time - as elsewhere in North America.

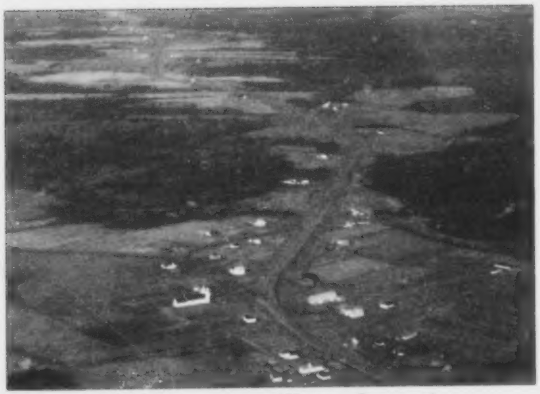


Figure 20. Shemogue village, from air (looking NW), 15 November 1977.

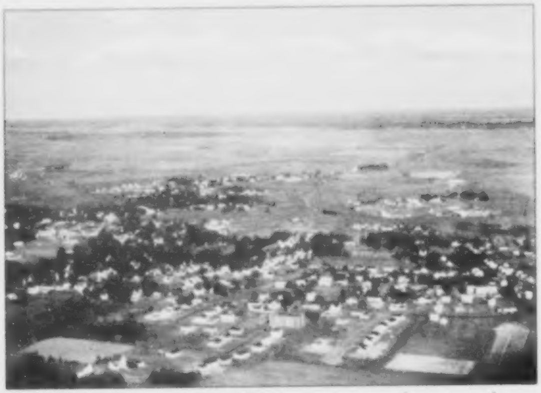


Figure 21. Sackville town, from air (looking NE), 24 August 1978.

This change in life-style was accompanied by increases in urban and suburban areas and in improved roads (Figure 22). The new, 'more prosperous' economy, emphasizing acquiring money and consumer goods more than undertaking useful and satisfying work, saw urban renewal (= habitat alteration) in town centres, generally to disadvantage of birds - with new buildings in vacant lots, repair of dilapidated buildings, removal of unplanned shrubbery, mowing of unused grassy areas, and so on. A shift, for heating, from wood or coal to oil or electricity, and a decline in small industries, reduced numbers of chimneys. These major changes mostly took effect after WW2, accelerating each decade since; they have no parallels in the past.

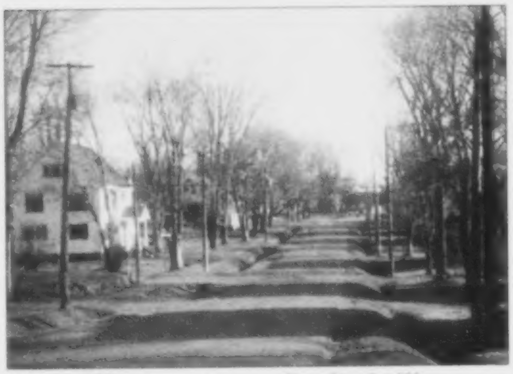


Figure 22. Lansdowne St., Sackville, late April 1981.

Several other cultural changes between 1930 and 2000 affected this area as an environment for birds. Garbage treatment is in its third major phase in the last 70 years, and each change modified uses birds could make of garbage. In 1930, local settlements had no garbage collection. Earlier, paper was burned in stove or furnace, and food scraps went on a heap (not yet termed compost) in a back corner of the lot, too little to attract regular visits by birds. Local dumps, for glass, metals, and old furniture, were informal and little used.When oil heating increased, from 1950, paper garbage soon outran easy disposal in town, and trips to dumps became more frequent. Once food scraps and wrappings were added to those loads, dumped garbage attracted birds, and that increased, despite plastic garbage bags and landfills, into the 1990s. Now, with garbage filling most potential disposal space nearby, recycling is 'in'. Adding food scraps (except meats) to garden compost heaps, again, may ultimately make dumps and landfills uninteresting to birds. Closure of shoreline dumps and of dumping from ferries greatly reduced opportunities for coastal scavenging by birds.

In 1930, horse-drawn transport was enjoying a (temporary) resurgence, with the Great Depression making cars unaffordable for most people. Except in centres of towns, many people had vegetable gardens, and some also kept hens and even cows, manure from which helped in gardening. Both foods fed to and wastes from livestock and poultry gave many opportunities for grain-eating birds, and outbuildings housed tolerant 'wild' birds as well as domestic animals. Urban livestock disappeared rapidly after WW2, and with it went much (unplanned) food for urbanized birds. Some vegetable gardens persisted, but chemical (instead of organic) fertilizers reduced their attractiveness to birds. Outbuildings, except where converted to garages, dwindled in both rural and urban settings. Most people like to see birds around their homes, but few except affluent people devoted much attention to them until after 1960. 'Shaking out crumbs from the tablecloth' had no real value to birds at any time. Increased affluence after WW2 saw emergence and increase of people who deliberately fed birds in winter so as to bring them to where their presence could be enjoyed. That practice expanded rapidly during the environmental movement of the 1960s and later, reinforced by increased awareness of birds through nature programs on TV. Bird-watchers gradually ceased to be objects of ridicule (still usual in 1960!). Winter feeding of birds is now so widespread, in rural as well as urban areas, that a group of well-stocked feeders may draw away most winter birds from far within surrounding woods and edges.

Acid rain - Also termed 'Long-range Transport of Airborne Pollutants' (LRTAP), features acidic emissions from industry and transport in upwind areas, especially the northeastern United States and southern Ontario and Quebec. This widespread problem led to increasing acidity (lower pH) - affecting fish populations - in fresh waters of southwestern Nova Scotia and other hard-rock areas, but this has not been considered important in our area. Lack of important commercial or recreational freshwater fisheries, owing partly to naturally low pH levels and infertile waters here, may explain local absence of such effects.

Global warming - Another widespread alarm of which local effects are still equivocal. Emissions of greenhouse gases, from industry, household, and especially transport, allow the earth to retain more heat derived from the sun, producing climate change. On the local scene, the widespread impression of milder and less snowy winters recently is not supported by monthly means of winter temperature and snowfall. Perhaps recent winter temperatures are more variable than formerly, with frequent thaws that remove accumulated snow cover; also, improved snow removal along streets reduces drifting and creates an impression of less snow. Nevertheless, many summers seem both warmer and drier than 40 years ago, and spring temperatures indeed average warmer, which allows earlier return of migrants and earlier nesting.

3. PRESENTATION OF DATA

With our objectives of describing current status - through 2000 (as a convenient cut-off date) - and tracking status changes from earliest local knowledge to the present, the available information needed geographic and temporal subdivision. Biophysical differences (described above) between Fundy and Strait shores argued for separate presentation of data from those areas. Our arbitrary dividing line ran from north of Calhoun via Centre Village to East Leicester, roughly separating the Northumberland plain from the ridges and Fundy lowlands southwest of it (Figure 2).

Ideally, population trends should be based on standardized surveys, such as Breeding Bird Surveys or Christmas Bird Counts. However, long-run data from those (quasi-) systematic surveys here, based on only 2 BBS routes or 3 CBC circles (Figure 3), were variable or (seemingly) unrepresentative for most species. Transient and wintering species mostly are not represented by either BBS or CBC, so use of unstandardized sightings was unavoidable. Trends based on local data were compared with BBS data from wider areas. Very few observers, now or ever, recorded personal sightings in ways allowing quantification of seasonal, annual, or long-term variations in status. Many published records were of less usual sightings (vagrants, out-of-season dates, or large numbers). Thus, the present summary was based mostly on our long-term local data-sets (McManus's (RMcM) and Erskine's (AJE) notes), that included many sightings of common species as well as less usual records. Normal patterns suggested by those data-sets gave a background against which other (selected) records were arranged.

The varying intensity of coverage in both data-sets made fully systematic comparison by year or decade impracticable. Accordingly, 'present status' was based on all data for 1981-2000 - but a few obvious changes within that period, revealed by the data, were noted as well. AJE data provided most of that baseline, as RMcM studied mainly migrant shorebirds then.

Data from earlier periods were also uneven, thus:

1961-80: RMcM was active throughout, but kept few notes except on shorebirds after 1974;
AJE was active when in area, but was absent for several extended periods in 1961-65, and lived in Ontario Dec 1968-Aug 1977;

1941-60: RMcM was active throughout, but his notes were sparser (5 yr had <100 records each) except in 1947-50;
Peters visited briefly each summer 1941-47; a few data were obtained from his (unpublished) reports;
Boyer was active Oct 1947-Feb 1956, but only brief published summaries of his data were available;
AJE lived elsewhere except Mar-Dec 1960;

1928-40: RMcM was active throughout, but his notes were much sparser (7 of 13 yr had <100 records each);
Peters visited each summer 1937-40, mostly for waterfowl study only.

Detail on most species did not allow meaningful comparisons between periods before 1960, so (combined) status prior to 1980 was summarized by observer rather than by time-period. Those data are presented in sequence of observer arrival. Individual records gleaned from *Nova Scotia Birds* (NSB; incl earlier *N.S. Bird Soc. Newsletter*) and *N.B. Naturalist* (NBN; incl earlier *Nature News*) were appended - under 'Others' - to summaries for both recent and earlier periods. A few seasonal dates and high counts in the recent period were inserted (and acknowledged) within the summary of AJE data. Accounts for the recent period also included summaries of local data from the Maritimes Breeding Bird Atlas (field-work 1986-90), and from Maritimes Nest Records Scheme (all years from 1960), to document known breeding status.

Treatment of species varied with data available. Three categories of treatment were used (with some borderline cases), thus:

Common/regular species, vs. - These species received 'full treatment', as discussed above. We classified them as year-round residents, summer residents, summer or winter visitants (non-breeding), and transients; the last group were present mainly during migrations, some lingering to CBCs but few overwintering even at feeders. Inferred changes in status, or failure to detect any, were summarized at the end of each account, with BBS trends if available.

Scarce/frequent species, vs. - Species in the intermediate category did not all warrant separate treatment for Fundy vs. Strait sub-regions (if found in both), and status changes often were not evident or unconvincing.

Strays (<15 records known in all years and areas) - Only a brief summary, listing known records, was given for these scarcer species, for which status - other than as vagrants - could not be established with confidence. Comments on these included status on wider scales.

Caveat: Some reports in *N.B. Naturalist* or *Nova Scotia Birds* seemed to us inherently unlikely, in occurrence, dates, or numbers, on the basis of accumulated experience in this region. Those are cited herein as 'published reports', without this indicating that all such records had been reviewed critically, by us or others. Some of those reports were noted as 'plausible', others as 'unlikely', but most were passed without commentary; we did not attempt to obtain substantiating details for most previously published reports. Future compilers beware!

4. STATUS CHANGES

4.1 Assessment of status changes

Even during the Atlas project, when all 10x10km UTM-grid squares in this region were visited (many repeatedly), observations were concentrated in areas that offered good variety or numbers of birds, along roads, or near residences of observers. Numerical comparisons of bird frequency or abundance are likely to be valid mainly when the same areas were surveyed, in the same way under similar conditions, at different times. No standardized counts spanned all the 70+ year period considered, and few rigorously comparable observation series continued more than a few years. Comparisons thus were based on (assumed) equivalent samples; that is, comparable time afield, by the same or equivalent observers, in (say) conifer forests in spring, was assumed to produce similar numbers and variety of birds, *unless* changes had occurred in their populations, *or* the habitat was changed drastically. That assumption also underlies use of 'birds per party-hour' for (trying to) equalize varying effort on Christmas Bird Counts. It is more useful for birds that tolerate a variety of habitats than for those found only in special situations. Habitat specificity is more obvious among water birds, and equivalent samples should not be assumed for those and for coastal birds.

Uncertainty in comparisons of data from different observers in different situations means we can be confident only of sizable changes, where numbers increased or decreased by one or several orders of magnitude. Building a vast computerized database of bird records for a statistical study of changes in populations was not considered, as most records could be used only for presence vs absence in a given period. Most conclusions emerged from study of long-run data: RMcM and AJE records, and local Christmas Bird Counts. None of those involved rigorously uniform effort or coverage, but variations were known roughly for each.

Actual censuses were lacking for most local birds and areas. One-day high counts, mostly from RMcM and AJE records, were used as proxies for relative density. CBC data (if adjusted roughly for effort, where appropriate) might give similar proxies - for early winter, but could not be compared easily with one-day counts by individuals. Mean arrival and departure dates for a species allowed another comparison between groups of years, with seasonal span of dates as an alternative where samples were too sparse for means.

The Breeding Bird Survey (BBS; see e.g. Dunn et al. 2000) is accepted as providing useful trend information on populations of many breeding birds, on a broad scale. However, trends based on fewer than 15 BBS routes are seldom representative and only 2 long-run BBS routes lie wholly within the Chignecto Isthmus region. For comparison with trends derived from unstandardized observations in this region, trends were calculated (by B. Collins of CWS-NWRC, Hull) for 14 BBS routes - the 2 local routes, plus 12 judged most similar, by biophysical location, to our region: the index, mean annual per cent change in the population represented (marked * if $P < 0.05$, + if $0.05 < P < 0.10$), with number of routes for which data was available, accompanies the regional summary of status change. Similar indices, based on all routes in the Atlantic Maritime Ecozone (Maritime Provinces and Quebec; from Dunn et al. 2000), were also included. (Note: Species with no BBS indices given were detected on too few routes for meaningful analysis, or do not occur here in breeding season.)

4.2 Explaining changes in local bird numbers

The annotated species list (see Appendix 1) shows that status of many species changed recognizably during the 70 years discussed. This is not surprising, as human influences on our environment in that period have been greater than most accumulated over all previous (historical) time. People now have the technology to alter global patterns, not merely their immediate surroundings. Inevitably, most changes detected in local bird numbers were caused, directly or indirectly, by human actions. Apparent changes, or lack of same, are summarized in Table 1, sorted by seasonal status categories (except omitting vagrants with <5 records or with no change detectable).

The bird population changes identified or suspected here may be (partly) explained by various environmental changes, which group in several categories, thus:

- **Climatic changes**
  (mostly contributory rather than primary);
- **Other natural environmental changes**
  (including those arising through human influences on other animals);

- **Cultural changes**
  (planned human actions affecting environment, incl. modifying urban and agricultural habitats - which were created earlier by human efforts);
- **Commercial changes**
  (especially human manipulation of forests to increase or extend exploitation of them);
- **Wildlife management changes**
  (human activities to increase numbers of desired wildlife species, mostly for hunting, but some for conservation);
- **Recreational changes**
  (human activities to make species more accessible, mostly for non-consumptive enjoyment).

Changes in a number of other species were not plausibly explained by obvious changes in the local environment (see Table 2). For most of these, population variations perhaps resulted from environmental changes acting in other areas or seasons.

Climatic changes - Despite recent talk of imminent global warming, most past climatic changes were relatively gradual, spanning centuries or millenia rather than decades. Scarcity of recognizable climatic influences as causes for observed changes in local bird status thus should be no surprise. Local climatic data (mean temperatures and precipitation) confirmed impressions of earlier springs, and thus shorter winters, in recent decades.

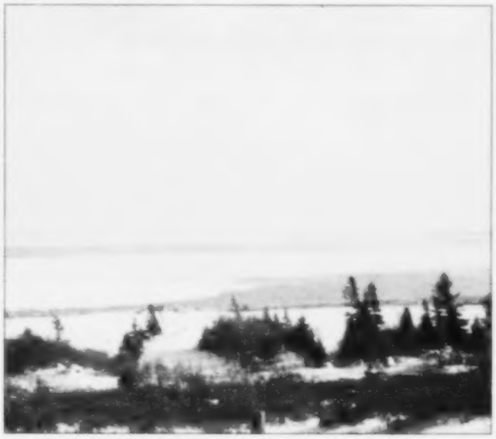


Figure 23. Cumberland Basin full of ice, from the Rockport rd. January 1962.

A number of birds that increased may have been helped by shorter duration and depth of snow cover: RPhe, MoDo, EuSt; or by less extensive ice cover or shorter duration: PbGr, Gadw, AmWi, Mall, RnDu, AmCo. The latter species (except PbGr) were virtually unknown here in 1930. They became established, some with human assistance, especially during the period of milder springs starting around 1975. (If GrPa had been introduced here after 1970, instead of in 1920s, it might persist in our area...?).

Conversely, springs markedly cooler (and wetter?) than recent averages had adverse effects on nesting swallows that returned early to claim nest-boxes (which are in limited supply). TrSw, which also nests far to the north, experienced and recovered from several cold spring 'setbacks' during our period. PuMa, here at its northeastern range limit, disappeared for years from some sites in our area, but persists at a few.

Other natural environmental changes - Changes identified here were all mediated through other animals, which mostly were influenced directly by human actions. Several forest bird species vary with numbers of spruce budworms (*Choristoneura fumiferana*) on which they feed: TeWa, CMWa, BlWa, BbWa, EvGr (also others for which overall changes were not detected here). Budworm numbers and distribution throughout New Brunswick were influenced by forest spraying of pesticides (1952-90), as well as by climatic variation between years. Numbers of open-country raptors vary in response to numbers and accessibility of meadow voles (*Microtus pennsylvanicus*): especially NoHa and RlHa (probably also SnOw, SeOw, of which fewer were seen, so trends were less evident). Although vole numbers cycle naturally, they also are influenced by changes - many and extensive in this area - in agricultural practices.

Some breeding species, particularly cavity nesters, were affected adversely by competition from alien bird species. HoSp was introduced to North America, including Nova Scotia, before 1860, and reached this area by 1880s (see Christie, 1979). EuSt was brought to New York in 1890, and in 1928 was first found breeding in N.B.; McManus found it here first in 1930. Competition with HoSp adversely affected numbers of ClSw (which probably became widespread here only in the preceding century; cf. Bent 1942); EaBl was displaced by EuSt, in particular; other species were affected less seriously.

Cultural changes - A wide array of environmental changes affecting bird numbers arose through human actions having other objectives. Some correlations were obvious; others were only suspected. Wetland habitats often were adversely affected. Disturbance to shoreline areas (rivers, lakes, and seashores), mostly for housing, cottages, or recreation, reduced habitats for SpSa in particular (Figure 24). Dyking and drainage of salt marshes, and draining of freshwater wetlands and damp fields, in support of agriculture, affected breeding opportunities for many wetland species: salt marshes - Will, NStS; fresh marshes - AmBi, BwTe, Sora, YeRa, SpSa, CoSn, MaWr, SeWr; damp fields - AmBi, BwTe, YeRa, CoSn, SeWr, NStS. Some drainage effects were later reversed, also by human actions (see below, under 'Wildlife management changes').

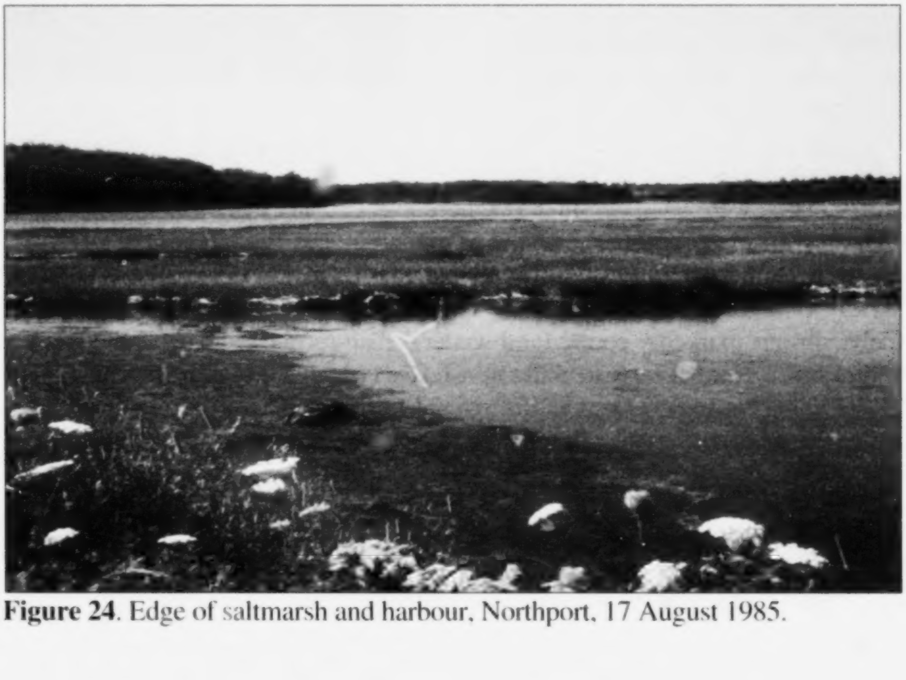


Figure 24. Edge of saltmarsh and harbour, Northport, 17 August 1985.

Local agriculture declined overall, even before the last wave of wetland drainage, and its continuing decline affected various birds in other ways. Loss of farm buildings (as nest substrates) affected BaSw, ClSw (latter also troubled by competition from HoSp). Disappearance of overgrazed pastures and extensive croplands (not treated with pesticides, etc.) reduced breeding habitats for VeSp and HoLa. Near-elimination of waste grain, with decline in farm livestock, restricted rural feeding and breeding by RoDo and HoSp.

Shifts to oil and later to electric heating allowed regrowth of many woodlands cut-over repeatedly for firewood for several centuries. The many birds of edge and shrub habitats benefited first, but few of those were scarce enough in our time to show obvious increases overall. PiWo is one species of which the increase may relate to this change (see also below). Expansion of clear-cut areas, for forestry or new housing, increased total area of newly cleared lands. Kill, which reached N.B. only ca.1945 (N.S. & P.E.I. later), likely took advantage of this in spreading across the Maritimes.

The still generally small areas of urban residential housing limited breeding opportunities for newly arrived urban birds, of which local numbers usually remained too small to persist here through harsh winters: e.g. Mock, HoFi. Although suburban sprawl continues, both increasing costs for gasoline and fuel oil and increased affluence generally contributed to improved maintenance of buildings in urban 'core areas'. Such 'urban revitalization' led to demolition of unwanted sheds and barns, and repair of residential and commercial buildings, reducing numbers of urban nesting sites especially for introduced birds: RoDo, EuSt, HoSp.

Development of municipal sewage disposal and garbage collection concentrated human wastes of potential interest to birds. Dumps and sewage lagoons soon became places birders checked for exotic species; some common birds also occurred there in larger numbers. When dumps overflowed, and were suspected of polluting waters, they were replaced by larger and more distant landfill sites, and birds that had frequented such sites sometimes declined locally. Ending the dumping of garbage from Northumberland Strait ferries reduced concentrations of most gulls around Cape Tormentine, and later replacement of the ferries by a bridge accelerated that trend. Large gulls and corvids were most influenced by the changes in garbage disposal - but perhaps more as to locations than numbers. Some water birds, including scarce species such as Lesser Scaups and Wilson's Phalaropes, seem to frequent sewage lagoons preferentially.

Some minor changes in bird numbers also fit in this subject area. Keeping dogs chained in towns reduced competition for edible litter there, and larger birds expanded into that niche (formerly used mostly by EuSt, HoSp): mainly AmCr and RbGu. Road-killed animals increased with more and faster motor vehicle traffic, and corvids made increased use of that food source: CoRa, AmCr.

Commercial changes - Another group of local changes in bird numbers arose from commercial forest exploitation. Increased pulpwood cutting - plus budworm kill (see above) - greatly reduced continuous conifer cover, and birds largely restricted to such habitats declined: SpGr, PiWo, esp. BoCh, perhaps GcKi and RcKi. Conversely, EaBl found a new niche, free of competition by EuSt, in recent clear-cut areas.Rapid growth by broad-leafed trees and shrubs, after conifer stands in southeast N.B. were decimated by budworm in 1974-75 (and 'salvage cutting' later) expanded habitat for birds that use hardwood stands and shrubbery, which increased in response: e.g. LeFl, Veer, Oven, MoWa, CaWa, RbGr. Drift into our area of DDT, used in forest spraying against budworm 1952-67 elsewhere in N.B., may have contributed to food-chain contamination here, breeding PeFa disappeared then (since reintroduced - see below).

Wildlife management changes - Human activities that may be termed wildlife management influenced numbers of many birds, including both game species (most activities were planned to benefit these) and others. Creation of shallow wetlands (impoundments) for waterfowl production assisted increase in many waterfowl, and also marsh birds: e.g. AmBi, all rails, BlTe, MaWr, and the more so as natural wetlands had been greatly reduced earlier for agricultural interests. A few marsh birds bred in local impoundments only during the first years after flooding, disappearing when fertility levels later declined: e.g. Redh, RuDu, CoMo. Placement around impoundments of nest-boxes benefited cavity-nesting ducks: WoDu, HoMe.

Some game species, deliberately introduced to provide hunting opportunities, became established locally through human agency: e.g. CaGo, Mall, RPhe, [GrPa]; the last later died out, and RPhe was found unable to sustain huntable numbers even with winter feeding.

Restriction or (temporary) closure of sport hunting probably assisted several species to increase (or re-establish) here: e.g. WoDu, RnDu, Will. Creation of bird sanctuaries (refuge areas) likely helped others to become established locally: e.g. Gadw, AmWi, NoSh, RnDu, AmCo.

Other human activities directly benefited specific species: planned re-introduction of PeFa (now breeding again); banning of trophy hunting likely helped PiWo, also raptors; reduction of general persecution led to increases in raptors and scavengers, such as BaEa, perhaps BwHa, PeFa, AmCr, CoRa.

Recreation changes - Finally, the proliferation of winter hobby feeding, so people could enjoy seeing birds around their homes, likely contributed to increases in winter survival for marginal species, as well as assisting detection of vagrants (Figure 25). Species certainly increased through winter feeding included: Mall, RPhe, MoDo, Mock, EuSt, HoFi, EvGr, HoSp. Erection of nest-boxes in urban areas, and their maintenance in the face of EuSt and HoSp competition, enhanced survival of some swallows, especially PuMa, here at its range limit; TrSw also uses such nest-boxes widely, but its numbers may not be affected significantly thereby (effect mostly re-distribution within local area).

Figure 25. Pheasants at feeder, Sackville, March 1999.

Unrelated apparent changes - Some other apparent changes in local birds seem unrelated to environmental changes apparent locally, and these may be driven by changes in other areas or seasons (Table 2).

5. DIFFERENCES BETWEEN AVIFAUNAS OF FUNDY AND STRAIT SUB-REGIONS

Characterization of six physiographic sections of the Chignecto Isthmus (see 2.3, pp.7 - 14) revealed obvious environmental and habitat differences that might cause differences in the occurrence of birds between Fundy and Strait sub-regions.

Tidal regimes - Macrotidal (range 10-15 m) on Fundy, minor (range 1-3 m) on Strait - produced major differences in coastal waters, and in breadth of intertidal zones.

Bedrock - Less resistant near Strait, more resistant near Fundy - and overburden - extensive marine clay deposits under Fundy marshes - produced different shorelines and intertidal substrates. The latter also contributed to highly turbid waters in Fundy.

Soil drainage - The flat, poorly drained terrain, with remnant lakes, around landward edges of Fundy marshes (former sites of shallow lakes, later bays) contributed to much greater number and extent of wetlands there than near Strait (which area has very few natural lakes). Dyking of coastal marshlands near Fundy produced extensive grasslands that differ markedly (in drainage, fertility?) from farm fields developed on former forest lands near Strait.

Climate - The Fundy 'fog belt' influenced forest cover and associated vegetation, producing (where limited disturbance allowed it) more generally coniferous forest than near Strait.

Relief - Higher ridges with steeper slopes near Fundy contributed to better drainage there than on most of the more level Northumberland Plain, with predictable effects on forest vegetation.

All those differences, and many others, affected regional habitats and the birds that use them:

Turbid waters off Fundy shores largely preclude fishing visually, resulting in scarcity or near-absence of several piscivorous groups that are (or were) general along Strait shores; such species, found more frequently along the Strait (mainly in fall unless noted), were RtLo, CoLo, HoGr, RnGr, NoGa, GrCo (all seasons), GBHe, RbMe (all seasons), Ospr (also inland nr Fundy).

Intertidal mudflats on Fundy attracted disproportionately larger numbers of many shorebirds than use Strait beaches (sandy); such species, found more frequently on Fundy shores (mostly in fall unless noted), were BbPl, HuGo, ReKn, Sand, SeSa, LeSa, WrSa, Dunl, SbDo; conversely, various waterbirds were found along Strait shores more often or in greater numbers than at Fundy; such species (in fall unless noted) were Bran (spring), LtDu, CoGo, Will (summer), BhGu, BoGu, HeGu (all year), IcGu (winter), CoTe (summer), BkSw (summer); high tides in early spring cleared ice from saltmarshes at Fundy before any were exposed near Strait shores, resulting (formerly) in more spring use of Fundy marshes by CaGo.

Greater abundance and (relative) fertility of fresh wetlands near Fundy supported one of the largest and most diverse aquatic bird communities (waterfowl and marsh birds) in the Maritimes, contrasted to (mostly) sparse and species-poor wetland assemblages near Strait; such species, found more often and in larger numbers near Fundy, were PbGr, AmBi, AmWi, BwTe, NoSh, Pint, GwTe, RnDu, NoHa, ViRa, Sora, YeRa, AmCo, PeSa (fall), WiSn, SeOw, AlFl, TrSw; this situation was accentuated by more frequent development of impoundments near Fundy than near Strait; species found in greater numbers on or around Fundy impoundments were PbGr, Gadw, Mall, NoSh (also sew lgns**), RuDu, ViRa, Sora, CoMo, AmCo, PeSa (fall), WiPh (also sew lgns**), BlTe, TrSw, MaWr, SwSp, RwBl, CoGr?.
*** see below, under urbanization.*

Grassland bird communities, both summer and winter, of Fundy marshes involved much higher densities, though few more species, than near the Strait; such species, more common near Fundy (mostly summer unless noted), were NoHa, RlHa (winter), RPhe (all seasons), AGPl (fall), Whim (fall, formerly), SnOw (winter), SeOw, HoLa, BaSw, EuSt, SaSp, LaLo (winter), SnBu (winter), Bobo.

Forests of the region have been so disturbed over the past three centuries that differences in woodland birds between sub-regions are not often obvious; fog belt influence, causing more conifers near Fundy - contrasted to high proportions of broad-leafed/mixed woodland near Strait, has some effect; epidemic irruption of spruce budworm into regional conifer forests led to higher numbers of some warblers and other landbirds near Fundy; species more common near Fundy were SwOw, TeWa, CMWa, BTGW, BlWa, BbWa, BpWa, BWWa, AmRe, Oven, DeJu, EvGr; those more common near Strait were BwHa, BaOw (in Atlas), HaWo (in Atlas), LeFl, Veer.

Habitat differences resulting (directly) from human actions also differ between Fundy and Strait; people are differently distributed, with all three 'towns' (Amherst, Sackville, Memramcook) and one village (Dorchester) near Fundy, vs one village (Port Elgin) and several sparser settlements near Strait. Urban/suburban bird communities, including winter bird-feeder assemblages, are more prevalent near Fundy. Sewage lagoons too are concentrated near Fundy, because 4 of 5 towns or villages are in N.B., which requires sewage treatment by them (whereas N.S. does not). Landbird species, found more often near Fundy, were RoDo, MoDo, ChSw (formerly), EWPe, PuMa, WbNu (winter), EaBl, AmRo?, EuSt, BoWx, SoSp?, CoGr?, EvGr, HoSp; various birds introduced by people (locally, or spreading from introductions elsewhere), were more frequently found near Fundy, thus Mall, PeFa, GrPa, RPhe, RoDo?, (EuSt).

Several other species showed differences between Fundy and Strait sub-regions, but habitat- or ecology-related causes were not obvious. Some of those differences were artifacts of special observations, as of seaducks crossing the Chignecto Isthmus during migrations: e.g. CoEi, SuSc, BlSc.Other differences - all involving songbirds more often found near Fundy - remain unexplained (likely involving several different influences), thus PaWa, FoSp, LiSp, RuBl (bog drainage might explain all these); CoGr?, CoRe, AmGo.

The varied mix of habitats in our two sub-regions, and the birds they support, are paralleled to some extent in nearby regions. Only three sites here, Amherst Point MBS and Grande Anse in Fundy sub-region, and Cape Jourimain NWA in Strait sub-region, are widely recognized (by birders and biologists alike) as exceptional in diversity and numbers of birds, mainly water, shore, and marsh birds. Birds in the Strait sub-region generally are quite similar to equivalent assemblages in coastal and near-shore parts of the sedimentary (Carboniferous or Permian) areas of eastern N.B., northern N.S., and P.E.I.. Our Fundy sub-region is less easily matched, although macrotidal mudflats and dyked grasslands also are prominent around Minas Basin (in the other arm of Bay of Fundy). Landbird communities here are not distinctive, although the Isthmus region probably is a 'bottleneck' (of less suitable habitats?) that may account for some continental species that breed widely in N.B. being scarce or absent in N.S. (and P.E.I.) [see Atlas - Erskine (1992), Chapter 7].

6. BIRDING AND AVIFAUNAL SUMMARIES

Published articles and books summarizing occurrence of birds in single Maritime Provinces appeared at intervals over the past 150 years (see Squires 1952, Tufts 1962, Godfrey 1954). Summaries of bird status in smaller areas within each province are fewer, mostly check-lists or briefly annotated lists (1-2 sentences per species). The present compilation is more detailed, most comparable with that on Sable Island birds (McLaren 1981), both built on early birding by volunteers and enlarged later by professionals and serious amateurs. McManus's observations here began before naturalist clubs and provincial bird books appeared in the Maritimes. Assembling observers for Christmas bird counts in 1960 and 1961 was the first cooperative bird study locally. This so fostered local interest that a club was founded here in 1973 (Figure 26). CWS also expanded its activities to cover birds other than waterfowl (Figure 27). Collection of nest records and the roadside Breeding Bird Surveys were CWS initiatives begun in the 1960s. Increased publicity through television, and proliferation of winter bird feeding and feeder-watching, followed, in 1960s and 1970s. The competitive urge in birding, here as elsewhere, continues to divert much volunteer effort away from the counting and study that underlie conservation. Future compilations here will also need to consult sources in French as well as English.

The present summary cannot be 'the final word' on bird status in the local region, but it should remain a useful reference for some decades. Status of regular bird species changes constantly, as actions of humans continue to alter the world we all share. Even without systematic monitoring of local numbers, at least one-quarter of all species reported here (one-third of our regular species) showed detectable changes in the 70 years discussed herein. This book offers baseline information on bird status with which local birders may compare their own observations. These - if preserved in accessible form - will provide data to document future changes.

Figure 26. Chignecto Naturalist's Club excursion, Cadman beach, 27 October 1979.

Figure 27. Shorebird banding at Grande Anse, 30 October 1977.

7. LITERATURE CITED

Note: The many bird sightings in species accounts, credited to season reports' in NSB (and NSBSN) and NBNat (and Nature News), were not given individual citations here, as they may be found easily by consulting the issue of those journals that covered the season indicated.

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Table 1. Comparison of seasonal status and population changes or lack of same – 1930 – 2000, Chignecto Isthmus region, New Brunswick and Nova Scotia. (Vagrants with < 5 records or with no apparent status change were not listed herein.)

Species Status	Certain increase	Possible Increase	Increase then Decrease (or reverse)	No Change (may vary up/down)	Possible Decrease	Certain Decrease
Year-round Resident	RPhe, MoDo, AmCr,CoRa, BcCh,Mock, EuSt	PiWo	GrPa, EvGr	SsHa,Gosh, RuGr, DoWo, HaWo, BbWo, GHOw BaOw,LeOw, GrJa,BlJa BrCr,RcKi, EaBl	SpGr, RoDo	BoCh, GcKi, HoSp
Breeder - May Winter	CaGo*, Mall, BaEa	Merl*	BhCo*	RtHa*,SeOw,SwOw, NoFl*,RbNu*,AmRo*, WwCr,PiSi,AmGo*	NoHa,CeWx,YrWaDe Ju,RwBl,RuBl*, CoGr*,PuFi	BlDu, HoLa*
Breeder - Not Wintering	PbGr,Gadw, AmWi*,NSho, RnDu,Kill, BlTe	HoMe,ViRa?, UpSa,WiPh?, LeFl,BhVi, Veer, GrCa, NPWa,BkbW, Oven,MoWa, CaWa	Pint,(Sora), CoMo?,AmCo, (AmWo?), (MaWr?), TeWa,BbWa, RbGr	CoLo,GBHe,WoDu,GwTe Redh,Ospr,BwHa,SoraRtHu, BeKi,EWPe,YbFlAlFl, ReVi,PuMa,WiWrSwTh, HeTh,TeWa,NaWaYeWa, CsWa,MaWa,CMWaBtBW, BtGn,BbWa,BaWWAmRe, NoWa,CoYe,WiWa,LiSp	AmBi,BwTe, YeRa,WiSn, YbSa,OsFl, EaKi,ChSp, SoSp,SwSp, WtSp	AmKe,BbCu, CoNi,ChSw, TrSw,BanS, BarS,ClSw, SeWr,PaWa, VeSp,SaSp, NStS,Bobo
Migrant	DcCo,HuGo, RbGu	GrCo,BcNH, SnGo,EuWi, PeFa,LeYe, Will,SeSa, Ruff,BhGu, CaTe	CaGo*, AmWi*, HeGu,GBbG,	HoGr,RnGrGrSc,LeScCoEi,BlSc LtDu,CoGoBaGo,CoMeRbMe, RuDu,Merl*,BbPl,AGPl,SePl, GrYeSoSa,RuTu,ReKn?,Sand, LeSa,WrSa?,PeSa?,Dunl,StSa SbDo,LbDoBoGu,BpWa	RtLo,CaGo* SuSc,SpSa, IcGu[2]GlGu	Bran,Whim, CoTe,HoLa* AmRo*AmPi, YrWa*FoSp, RuBl*CoGr* BhCo*
Winter Resident	RbNu*,BoWx, PiWa	RtHa*		SnOw,NoFl*,NShr,WbNu,ATSp, LaLo,SnBu,PiGr,CoRe,AmGo*	RlHa	
Vagrant/ Visitant [1]	CaEg,TuVu,WiFl, GCFl,BgGn, NoCa,InBu,HoFi	WaVi, Dick,	BcNH,Gllb, Redh,			LoSh

* Status required 2 entries.

[1] Vagrants/Visitants with <5 records or no change apparent were omitted.

[2] Small increase near Fundy cancelled by large decrease near Strait.

Table 2. Species with changed status not explained by local environmental changes, sorted by migratory status.

Species Status	Certain increase	Possible Increase	No Change (may vary up/down)	Possible Decrease	Certain Decrease
Year-round Resident					
Breeder - May Winter				AmRo, CeWx, YrWa, RuBl, CoGr, BhCo, PuFi	
Breeder - Not Wintering	Kill	Merl,UpSa, BhVi,GrCa, NPWa	EWPe	ChSp, SoSp	TrSw, BanS, BarS, PaWa, SaSp, Bobo
Migrant	DcCo, HuGo	GrCo, BcNH, SnGo, LeYe, BhGu,CaTe	ReKn?, PeSa?,	RtLo	Bran,Whim, AmPi,FoSp,
Winter Resident	BoWx		SnOw	RlHa	
Vagrant/ Visitant [1]					

[1] Vagrants/Visitants with <15 records or no change apparent were not considered here.

Appendix 1. Annotated list of the birds: species accounts

Abbreviations

To save space, telegraphic style was used, omitting periods in most abbreviations (as noted below). Specific records were abbreviated (and credited) thus:

Major resident observers (in order of appearance)

- McManus (M), Peters (P), Boyer (B), Erskine (E), Tingley (T, incl unpubl supplement to Boyer 1971); others by name, except records in NSB (and NSBSN) and NBNat (and Nature News) by C Desplanque (as CD) or S Tingley (as ST); var obs = various observers.

Organizations or projects

CWS = Canadian Wildlife Service; DU = Ducks Unlimited (Canada); MNRS = Maritimes Nest Records Scheme; CBC = Christmas Bird Count; BBS = Breeding Bird Survey.

Location abbreviations

Provinces - N.B., N.S., P.E.I.; U.S./U.S.A. - United States (of America); N, S, E, W = North, South, East, West (and combinations thereof); km, mi = kilometres, miles; nr = near; L = Lake; R = River; msh = marsh; pd = pond; impmt = impoundment; sew lgn = sewage lagoon; Bch = Beach; Bk = Brook; Br = Bridge; Pt = Point [vs Port spelled out]; Cor = Corner; Hd = Head; Vill = Village; Sett = Settlement; Ft = Fort; Up, Mid, Lr = Upper, Middle, Lower; Lit = Little; rd = road; Pk = Park; MBS = Migratory Bird Sanctuary; NWA = National Wildlife Area.

Descriptive abbreviations

br plum, w plum = breeding or winter plumages; ad, im, yg = adult, immature, young; flk flock(s); w-f = waterfowl.

Species names

4-letter mnemonics (given in headings of species accounts); for breeding birds, most as in regional Atlas (Erskine 1992) - with some updating, e.g. RbMe (not ReMe) = Red-breasted Merganser; non-breeding species by usual 'formulae', varied to avoid duplication.

[**other different mnemonics appear in sources other than the Atlas**; e.g. NSho (vs NoSh) = Northern Shoveler - there are ambiguities in all systems...]

Dates

months: 3-letter abbreviations; yr = year(s); wk = week(s).

Other

max = maximum (one day); inc = incubating - vs. incl = including; pr = pair(s) vs = versus.

Annotated List

Red-throated Loon *Gavia stellata* [RtLo]

Fundy

Present Status: spring stragglers, 4 recent records; 3 in 1981 [same bird?], 7 May, Jolicure (CWS files), 18 Jun-26 Jul, Amherst Pt MBS (1, wint plum; CD, in NSB), mid-Nov to 13 Dec (1), Nappan (ST, in NSB); 8 Jul 1989 (1, br plum), S of R Hebert (E).

History: spring - (M) scarce transient, 1969-74 (11 of 17 dates were in 1973), 24 Apr-26 May, most 1-2, once 8; (Distribution) off Cape Maringouin, Joggins, Grande Anse, Memramcook L; summer; (B,T) stragglers nr Westcock 16 Jun 1951, nr Aulac 7 Aug 1974; fall – (M) Memramcook L 15 Nov 1970, 15-16 Nov 1972; (T, others) Amherst Pt MBS 20 Oct 1973, 23 Oct 1976 (CD).

Strait

Present Status: spring straggler 1985 (1), Tidnish (NSB); fairly common fall transient, moulting (flightless?) when first arriving.
(E, others) - 25 Sep-21 Nov, max 14 (21 Oct/00, Amherst Shore Prov Park); exceptional numbers 23 Oct 1985 (410 and 40), off Cape Jourimain and Cape Tormentine (ST, in NB Nat); (Distribution) off shoreline areas Cadman Cor to Port Howe; (CBCs) - Cape Tormentine (5 yr 1967-92; max 2).

History: spring stragglers (CWS, E), 12 Apr 1980 (15, w plum), Cape Jourimain; 15 May 1962 (1), Port Howe; fall (E,T,CD) 20 Sep-26 Nov, max 90+ (26 Nov 1979, Cape Tormentine; ST, in NSBSN); (Distribution) most at Cape Jourimain, Cape Tormentine, Baie Verte.

Notes: in Sep most in br plum, perhaps flightless then (Erskine 2001); change to w plum through Oct; data suggest some passage over isthmus in spring, less (or none?) in fall - when (birds flightless?) continues east via Northumberland Strait;

Changes: fewer noted in Fundy recently, possible decline.

Pacific Loon *Gavia pacifica* [PaLo]

Fundy

Present Status: [no records nr Fundy]

Strait

Present Status: Vagrant (hypothetical), one report, 21 Sep 1990 (1), Tidnish (D and C MacNeill, in NSB).

Notes: in N.S., 8 sight records through 1985, Sep-Apr, none confirmed by photo or specimen (Tufts 1986); no reports in N.B. through 1975 (Squires 1976); 'accidental' in fall in P.E.I. (1991 checklist); thus apparently still unproved anywhere in Maritimes.

Common Loon *Gavia immer* [CoLo]

Fundy

Present Status: scarce spring transient; uncommon resident, on most larger lakes, through summer to early fall; (E,M) 12 Apr-31 May (in 6 of 20 yr), stragglers (non-breeding?) thru Jun; (Distribution - spring) off Grande Anse (on sea), Memramcook L, Tantramar R, Morice L, Maccan R; (Atlas, MNRS) in 6 squares, breeding confirmed in 5; nests at Jolicure Ls (5).

Harrison L, eggs 28 May-24 Jun; broods also at Morice L, Missiquash msh, Amherst Pt MBS (impmt), flightless yg to 12 Sep; (CBCs) Sackville 1981 (1).

History: (P) nest - eggs 1 Jul 1941, Missiquash msh (in B); (M) at Memramcook L 7 yr 1965-73, 21 Apr-7 Jun, max 4; Grande Anse 7-27 May 1974, max 4; also single stragglers Jun or Jul 1967, 1971, 1973 (no breeding); (B) "Pairs... appear on the lakes during the last half of April", 4 Apr-3 Aug; brood 4 Jul 1955 Morice L; also in summer (some subadults) in July, max 7; (E) in 6 yr 1960-80, 5 May-18 Sep, max 4, Jolicure, Amherst Pt MBS, and calling in flight Sackville, E Amherst.

Strait

Present Status: Scarce spring transient; scarce summer resident or visitant (few lakes); common Jun-Aug staging of non-breeders (mostly winter plumage); fairly common fall transient; spring: (E) 18 Apr-26 May (4 yr); (Habitat, Distribution) on sea, Murray Bch to Port Philip; summer: (Atlas) confirmed breeding in 2 of 9 squares with species; (Distribution) noted at Poucette L, Square L, Collins L; Non-breeders summer on Baie Verte, max 120+ (A Smith); many calling birds flying over inland areas (all across isthmus) in summer may come from that assemblage; fall: (E, others) 25 Sep-21 Nov; max 30* (29 Oct 1982, Tidnish Dock) (ST, in NSB); (CBCs) Cape Tormentine 8 yr, max 2 (1992).

History: (E) 25 Sep-19 Nov, max 15, Cadman Cor to Port Philip; (CBCs) Cape Tormentine 4 yr, max 3 (1979).

Notes: Breeding on impoundment may be a 'first'; probably migrants cross isthmus in spring, apparently not fall (similar to RtLo), but timing unclear owing to presence of breeders inland (Apr-Aug) and of flying birds from summer staging.

Changes: No evidence of status change; BBS indices, nearby rtes -0.9% (10), Ecozone +3.3% (54).
* a report, 4 Oct 1989 (50), Cape Jourimain (D MacKinnon, in NB Nat), might be of (or include?) RtLo, by location and date.

Pied-billed Grebe *Podilymbus podiceps* [PbGr]

Fundy

Present Status: Locally common summer resident; (E,M) arrival, earliest 9 Apr, mean 21 Apr (18 yr); max. 10+ ads (also broods);, mean departure 8 Nov (4 yr); (Atlas, MNRS) in 8 squares, confirmed breeding in 4; at Amherst Pt 1982, 55 nests found in 19-ha impmt (highest density known for species; Forbes 1983); 33 nests (MNRS, excl Forbes' study) eggs 18 May-28 Jul, yg 14 Jun-6 Jul, 24-31 Jul, 20-27 Aug; sometimes two broods - small yg thru Sep; brood on new impmt Taylor Vill 1986; (Habitat, Distribution) fertile fresh marshes, incl impmts; at Memramcook L, Sackville, White Birch rd impmts, Tintamarre NWA, Jolicure L, Missiquash msh, Eddy msh, Amherst Pt MBS, Blair and Paterson Ls, Maccan R.

History: (M) at Memramcook L 24 yr 1931-73, arrivals, earliest 15 Apr 1949, mean 27 Apr (10 yr), max (May-Jun) 5, (Aug-Sep) 25, 18 Sep 1937; departures, mean 21 Oct (15 yr), latest 11 Nov 1967; broods noted 1949, 1970-73; (B) "Common summer resident", 6 Apr-24 Oct; breeding only at Midgic, Jolicure, and Amherst Pt MBS, broods 8 Jun-7 Aug; (E) 14 Apr-24 Oct, max 10; (Others) earliest arrival 1 Apr 1976 (1); high counts 2 Aug 1975 (20 ad,60 yg), 13 Aug 1978 (200), all Amherst Pt MBS - after 1st impmts (CD, in NSBSN).

Strait

Present Status: (E, others) Scarce summer resident; 2 May (J Taylor, in NSB) -26 Sep; all singles; (Atlas, MNRS) breeding confirmed in 6 Atlas squares, also at impmts Bayfield (brood), S of there, Baie Verte, Tidnish Xrds (brood), Linden, Port Howe.

History: (E) 8 Aug 1974 (1), Cape Jourimain NWA, only record then.

Changes: Major increase since impmts constructed, seen in more locations and in much greater numbers.

Horned Grebe *Podiceps auritus* [HoGr]

Fundy

Present Status: no recent reports.

History: only 3 records through 1965, more records and higher counts 1966-76 than before or since; (M) at Memramcook L 6 yrs 26 Sep-17 Oct 1967-76, max 2;(B) nr Jolicure 12 Oct 1953, 25 Oct 1949, singles;(E) Amherst Pt MBS 24 Oct 1960 (1); Sackville 25 Oct 1966; Memramcook L 4 Nov 1967 (1); (T) Amherst Pt MBS 14-22 Oct 1972,1975); one (br plum) 12 July 1975, Tintamarre NWA (D Whitman; compare Note below).

Strait

Present Status: fairly common fall transient; (E) (straggler 7 Sep) 7 Oct-25 Nov; max 25+ (23 Oct 1983, Tidnish Dock);(Distribution) at Cape Jourimain NWA, Cape Tormentine, Upper Cape, Port Elgin, Tidnish, Amherst Shore, Port Philip.

History: in fall, (E) 11 Oct-28 Nov; max 56+ (26 Oct 1968, Tidnish, Baie Verte);(T) 3 Nov-8 Dec 1979, max 30+ (ST, in NSBSN); (CBCs) lingered, Cape Tormentine 4 yr 1980-93 (max 4, 1993).

Notes: [in spring nr Wallace, 20 km E of area, 12 May 1960 (1, br plum); E].

Changes: data too sparse for convincing trend.

Red-necked Grebe *Podiceps grisegena* [RnGr]

Fundy

Present Status: scarce fall transient; (E) 21 Sep-10 Oct, singles, at Large L (Jolicure), Amherst Pt MBS.

History: (M) 10 May 1969 (2), Memramcook L; 12 Sep 1970, Memramcook L (in NB Nat);(B) never noted in his (smaller) area; (E) 21 Sep 1980 (1), Amherst Pt MBS;(T) 8 Oct 1973 (2), Amherst Pt MBS.

Strait

Present Status: uncommon fall transient;(E) 21 Sep-16 Nov; max 17 (21 Oct 2000, Tidnish Dock); (Others) max 80 (29 Sep 1991, B Maybank, in NSB); exceptional early arrival and high numbers 1985, 10 Sep (135) and 5 Oct (225), and 9 Sep 1990 (150), Tidnish Dock (ST, in NSB); (Distribution) also at Murray Bch, Cape Tormentine, Upper Cape, Port Elgin, Baie Verte, Amherst Shore; (CBCs) lingered, Cape Tormentine (5 yr 1974-99, max 2).

History: (E) 27 Sep-9 Dec, max 7, Cape Tormentine, Timber R, Baie Verte, Tidnish Dock;(T) 12 Nov 1974 (30), 15 Nov 1975 (45), 3 Nov-8 Dec 1979, max 75 (17,24 Nov), Tidnish Dock (CD, ST, in NSBSN).

Changes: no suggestion of trend, but few except at Baie Verte.

Wilson's Storm-Petrel *Oceanites oceanicus* [WiSP] and/or
Leach's Storm-Petrel *Oceanodroma leucorhoa* [LhSP]

Status: Vagrant, 3 records; 9 Sep 1970 (1, LhSP), found dead Sackville (R Henderson, A Smith); 20-21 Aug 1991, 20+ (sp?), off Grande Anse, during/after passage of 'Hurricane Bob' through area; 12 Nov 1972 (9, LhSP), Cape Jourimain to Murray Cor, after hurricane in Bay of Fundy (E Tull et al, in NB Nat).

Note: both regular in N.S. offshore waters, LhSP breeding nr mouth Bay of Fundy; only to be anticipated in our area when storm-driven.

Cory's Shearwater *Calonectris diomedea* [CoSh]

Strait

Present Status: vagrant (as would be any shearwater), one report, 22 Dec 1998 (1), Cadman Cor (A MacFarlane and B Murphy, CBC), 1st observer familiar with shearwaters, both submitted detailed reports.

Notes: [species known but scarce off outer coasts N.S. May-Nov, most Jul-Aug (Brown 1986); reported in N.B. off Grand Manan I summers since 1976]; location and date here both seem unlikely for this species.

Northern Gannet *Morus bassanus* [NoGa]

Fundy

Present Status: vagrant, 2 records, 20 Mar 1931 (5), College Br (M; did not name species in notes, but his description was unmistakable, date plausible though early); 18 Apr 1998 (6), Rockport (P Bogaard, in NB Nat).

Strait

Present Status: uncommon transient; (E) 28 Sep to mid-Nov, max 30+; (Others) a few Apr dates, exceptional numbers 30 Apr 1994 (est 7000+, Murray Cor, Cape Jourimain, Baie Verte; ST, in NB Nat); fall max 156 (24 Oct 1989, D MacKinnon, in NB Nat); (Distribution) nr Murray Cor, Cape Jourimain, Upper Cape, Baie Verte, Tidnish Dock, Amherst Shore Prov Park, Northport, Port Howe; (CBCs) Cape Tormentine 1982 (7).

History: (Others) at Tidnish Dock, Northport, 18 Oct 1978 (35+), Cape Jourimain 25 Nov 1979 (1), Cape Tormentine 12 Dec 1979 (2) (ST, in NSB and NB Nat); (CBCs) Cape Tormentine 1978 (2).

Notes: Seldom attempts overland crossing of isthmus in migration; few known inland hydro-line kills nearby (perhaps also in area) may be storm-driven birds?

Changes: local data too few for trends; Bonaventure I (Que) population, from which local sightings presumably originate, increased 2-4x since 1930.

Great Cormorant *Phalacrocorax carbo* [GrCo]

Fundy

Present Status: scarce transient, 4 recent records; (E, others) 23 Mar 1984 (1), Wood Pt (CWS files); 2 Oct 1997 (2 im, resting), 5 Oct 1998 (1+, flying SW with flk DcCo), both Sackville w-f park (E); (CBCs) Amherst 1990 (1).

History: (T) "Rare transient" - 22 Apr 1972 (7 ad), over Aulac R; 10 Apr 1979 (9 ad), over Eddy msh; 22 Dec 1980 (1), Missiquash R at Pt de Bute.

Strait

Present Status: uncommon spring-late fall visitant; (E, others) 26 Apr-late May; 5 Jul (D Christie and E Tull, in NB Nat); 3 Aug, 10 Nov-20 Dec, max 15+ (non-breeders); (Distribution) all sightings at or nr Cape Tormentine, mostly on breakwaters off dock area; (CBCs) Cape Tormentine 1981,1983 (max 6).

History: (P) 11 May 1939, Cape Tormentine; (E) none in 1960s, 22 Apr 1978 (4), Cape Tormentine; (CBCs) Cape Tormentine 3 yr 1977-80 (max 2).

Notes: increased in numbers and in observation frequency from late 1970s, likely dispersing from recent colonies on PEI Strait shore [before 1970s this species bred in PEI only on N and E shores].

Double-crested Cormorant *Phalacrocorax auritus* [DcCo]

Fundy

Present Status: uncommon spring and fall transient, and irregular (non-breeding) summer visitant; (E,M) 12 Apr-30 May, max 7; through summer, max 10; 5 Sep-4 Nov, max 80+ (flying over), 20 (resting); (Distribution) at Memramcook L, Dorchester, Grande Anse, Rockport, Sackville, Jolicure, Amherst Pt MBS; [nearest breeding at Grindstone I, 4 km SW of area (Atlas)].

History: (E) only 6 records, 14 Jun-4 Sep, max 2; (Others) straggler 2 Dec 1973, Amherst (killed by car!), early arrival 2 Apr 1978 (1), Amherst Pt MBS (both CD, in NSBSN).

Strait

Present Status: uncommon spring and fairly common fall transient, irregular (non-breeding) summer visitant;(E) 18 Apr-26 May, max 10; through summer, max 100+ (post-breeding); 5 Sep-21 Nov, max 40; (Distribution) widely along shores Johnsons Pt to Cape Jourimain NWA and Cape Tormentine, Upper Cape, Port Elgin and Tidnish to Linden and Port Philip;(CBCs) Cape Tormentine 1996, 1999 (max 5).

History: (E) 22-26 May, max 5; 2 Jul 1980 (1), Cape Tormentine; 16 Aug-12 Nov, max 40 (27 Oct 1979, others singles);(CBCs) Cape Tormentine 1974 (2).

Notes: marked increase in numbers and frequency in 1980s, presumably by dispersal from much larger numbers breeding in PEI since 1970; BBS indices, nearby rtes +6.5% (7), Ecozone +2.5% (33).

American Bittern *Botaurus lentiginosus* [AmBi]

Fundy

Present Status: fairly common summer resident, a few linger into winter;(E, others) arrival, earliest 20 Apr 1993, Maccan (K Spicer, in NSB); mean 7 May (6 yr); last seen 2 Sep (E); max 12 (15 Jun 1991, Amherst area, F Lavender, in NSB); also 1 found (injured) nr CBC radio towers 20 Jan 1983 (ST, in NB Nat);(Atlas, MNRS) in most squares, breeding confirmed (yg out of nest) only nr Amherst; 9 nests (all years), eggs 23 May-27 Jul, yg 11 Jun-8 Aug (var obs);(Distribution) at Memramcook L, Beaumont, Dorchester, Sackville, White Birch rd, Cookville, Tintamarre NWA, Eddy msh, Amherst msh, Amherst Pt MBS, Maccan R; (CBCs) Sackville 1986 (1).

History: (M) noted it most visits to Memramcook L 1931-73, arrivals, earliest 10 Apr, mean 24 Apr (13 yr); departures, mean 10 Oct (10 yr), latest 26 Oct; max 6 (6 Oct 1931); (P) "Common", earliest 30 Mar 1945, Aulac (per J Tingley); (B) "Common summer resident", latest 9 Nov, max 11 (3 Aug 1948); (E) 5 May-18 Oct, max 3.

Strait

Present Status: uncommon summer resident; (E) 9 May-2 Sep, singles; (Atlas, MNRS) in 13 squares, confirmed breeding in 3; 3 nests (all years), eggs 6-18 Jun, yg 18 Jun-16 Jul, Cape Jourimain NWA, Port Elgin, Linden (H Harries, R McLeod, J Taylor); (Distribution) also noted at Anderson Sett, Cape Jourimain NWA, Bayfield, Cape Spear, Baie Verte, Tidnish, Amherst Shore.

History: (E) 27 May-25 Sep, max 2.

Notes: probably declined in numbers; less often detected now, also (M) in past detected it 2 wk earlier and 5+ wk later than at present - implying more common then; BBS indices, nearby rtes -3.5% (13), Ecozone -1.8% (51).

Least Bittern *Ixobrychus exilis* [LeBi]

Fundy

Present Status: summer vagrant, one breeding attempt; (Others) Amherst Pt MBS, 7 Jul 1981 (2, hd and seen) (CD, ST, in NSB); pr, and nest (failed), summer 1982 (M Forbes); Eddy msh, 23 Jun 1990 (F Lavender, in NSB, Atlas).

History: (B,T, others) 5 Jul 1949, Midgic; 10 Jun 1976, Tintamarre NWA (P Barkhouse, R Milton); Amherst Pt MBS, Jul-Aug 1979 (E Mills), 5 Jul 1980 (CD, ST, in NSBSN); Up Dorchester summer 1980 (D Paul).

Notes: Species does not breed regularly in Maritimes (Atlas), but breeding might occur in area, if anywhere.

Great Blue Heron *Ardea herodias* [GBHe]

Fundy

Present Status: fairly common summer visitant (non-breeding), a few linger into winter; (E,M) arrival, earliest 7 Apr, mean 13 Apr (8 yr); records more frequent after yg fledge in late Jul, max 11; departure, mean 25 Oct (12 yr); stragglers to CBCs; (Distribution) Grande Anse, Rockport, Rampasture, Sackville, Cookville, Jolicure, Aulac, Amherst Pt MBS; (Atlas) sightings of lone birds (foraging?) only; [nearest colony known, Grindstone I (4 km SW of area)]; (CBCs) Sackville 8 yr (max 3), Amherst 9 yr (max 2).

History: (M) regularly at Memramcook L 1930-73, arrivals, earliest 2 Apr, mean 19 Apr (21 yr); max 10 (2 May 1973); departures, mean 12 Oct (17 yr), latest 9 Nov; (B) "Fairly common transient and uncommon summer visitant"; (E) 3 Apr-12 Nov, max 9; (Others) max 23 Aug 1975 (40), J Lusby msh; lingerer 30 Jan 1977 (1), Amherst Pt (both CD, in NSBSN); (CBCs) Sackville 3 yr 1969-77 (singles), Amherst 3 yr 1976-79 (max 2).

Strait

Present Status: common summer visitant (non-breeding); (E) arrival, earliest 6 Apr, mean 12 Apr (7 yr); large increase after yg fledge in late July, max 130 (17 Sep 1988, Port Elgin, Tidnish); departure, mean 30 Oct (13 yr), only stragglers after 21 Nov, e.g. Linden 5 Dec 1983; (Distribution) Shemogue to Bayfield, Baie Verte to Port Philip; (Atlas) foraging birds sighted; [nearest colony found Chase L (6 km SE of area) 1986; 2 others 10-20 km E of area]; (CBCs) Cape Tormentine 5 yr 1981-2000 (singles).

History: (E) 18 Apr-19 Nov, max 57 (29 Sep 1967), stragglers 5 Dec 1962, 10 Dec 1966 (injured); (Others) colony nr Cobourg rd, active to 1977, reported by Irving spray pilots as moved 1979 (never found again by CWS).

Notes: in past, (M) detected 1 wk later in spring and 2 wk earlier in fall than now, perhaps reflecting small, isolated wetland studied there (compare more and larger areas - with more herons - farther E in area); assume large post-breeding flocks come mainly from outside area (PEI?).

Changes: no clear local evidence of changed numbers; BBS indices, nearby rtes -1.9% (11), Ecozone -4.4% (54).

Great Egret *Ardea alba* [GrEg]

Fundy

Present Status: scarce spring-summer vagrant (all singles); (Others) 21 May 1981, Aulac (P Barkhouse, in T); May 1985, nr Amherst, photo'd (R MacNeil, in NSB).

History: (M) 16 and 25 Apr 1973, Memramcook L; (T) 30 Apr-12 May 1974 (M. Bateman, CD, ST); 23-24 Apr 1977 (ST, in NSBSN and NB Nat); 8 Jul 1980 (CD), Chignecto NWA (in T).

Strait

Present Status: scarce spring-summer vagrant (all singles); (Others) 12 May 1985, nr Northport (Caldwells, in NSB); 19 Aug 1990, Shinimicas R (E and A Mills, in NSB); 21 May-6 Jun 1996, Cape Jourimain NWA (C Adam and M Crowell, in NB Nat); 9 Sep 1999, Cape Tormentine (F and J Dubé, in NB Nat).

Notes: a 'regular vagrant' to Maritimes from southern breeding areas [nearest Long I, N.Y.].

Snowy Egret *Egretta thula* [SnEg]

Fundy

Present Status: spring vagrant (singles if number not given); (E, others) 8 July 1986 (2), Rampasture; 3 May 1987, Sackville (ST, in NB Nat).

History: (M) 30 Apr 1963, Memramcook; (E, others) Chignecto NWA, 30 Jun-2 Jul 1978 (R Hounsell, T), 1 May 1979 (G Hansen et al, T); Rampasture saltmsh 13-17 May 1979 (3; T,E), 7 May 1980 (P Hicklin,T); Rockport 29 May 1980 (CWS files).

Strait

Present Status: spring vagrant; no recent reports.

History: (Others) 22 Jun 1973, Cape Jourimain NWA (A McInnis, in NB Nat); 23 Apr 1977 (2), Baie Verte (ST, in NSBSN and NB Nat).

Notes: another 'regular vagrant' from the south, breeding recently in so Maine - possibly sw N.S. (Atlas); spring occurrence is usual in Maritimes - those seen later probably lingered.

Little Blue Heron *Egretta caerulea* [LBHe]

Present Status: vagrant; 24 May 2000, nr Mid Sackville (N Belliveau et al, in NB Nat); vagrant: late Aug 1995, Baie Verte (NB 'hotline').

History: 12 Aug 1948, Midgic (B, D Pimlott); 25-29 Apr 1973, Amherst Pt MBS (many obs; T); late Apr-early May 1978 (1), Maccan (R Burrows, in NSBSN).

Notes: Breeds in Maine, and occurs annually in N.S. (all months Apr-Nov), so might be expected here more often.

Tricolored Heron *Egretta tricolor* [TrHe]

Strait
Present Status: vagrant; 11 May 1973, Cape Jourimain NWA, (A McInnis, in NB Nat).

Notes: a scarce coastal breeder in e U.S., once in Maine (1977); seen rarely in N.S. and N.B., mainly in spring.

Green Heron *Butorides virescens* [GrHe]

Fundy
Present Status: vagrant; no recent records.
History: (M) Memramcook L 11 May 1970, 19 May-1 Jun 1971 (1-2), 28,29 May 1972; (T, others) Missiquash msh 11 Jun, 9 Jul 1967 (A Smith, B addendum); Tintamarre NWA 9 May 1969 (S Lunn, B addendum), 8 Jul 1977 (CWS staff); Amherst Pt MBS 18-26 May 1974 (CD, ST), early May 1975 (CD), 5 May 1978 (DU staff).

Strait
Present Status: vagrant, no recent records.
History: 12-14 Jun and 16 Aug 1972, Cape Jourimain NWA (A McInnis, D Finch).

Notes: Those seen locally presumably strayed from sparse breeding areas in N.B. (Atlas) or Maine, likely all arriving in spring (7 of 11 records in May, others perhaps lingering); no reports since 1978 suggests later decline (in areas of origin?).

Cattle Egret *Bubulcus ibis* [CaEg]

Fundy
Present Status: vagrant (singles unless numbers given); (E, others) early Nov 1982, nr Amherst (R Elliot, in NSB); 5-19 Nov 1988 (2), Westcock (E); 9 Nov 1988, Dorchester (ST, in NB Nat); 19 Nov 1991, Sackville (C Ellingwood, E).
History: (T) 7 Nov 1970 (2), Sackville (A Smith, in B addendum); 29 Jun 1976, Missiquash msh (P Barkhouse), 23 Apr 1977, Amherst Pt MBS (many obs), late Nov 1977, Westcock (B Johnson).

Strait
Present Status: vagrant; early Nov 1981, Baie Verte (M Spence, in NB Nat).
History: 25 May-1 Jun 1973, Bayfield (A McInnis, in Squires 1976).

Notes: reached Americas in 20th Century, spread N to breed in Canada by 1962, little northward spread since 1970; 7 of 10 records here in November (mostly recent), unlike N.S., where spring records far outnumbered those in fall; no reports since 1991 suggests less vagrancy recently.

Black-crowned Night-Heron *Nycticorax nycticorax* [BcNH]

Fundy
Present Status: uncommon summer visitant (non-breeding); (E,M) 3 May-22 Oct, in all months, max 12, both ad and im birds seen; (Distribution) at Memramcook L, Rampasture, Sackville, Tintamarre NWA, Missiquash msh, Chignecto NWA.

History: (M) 29 Jun 1970, Memramcook (in NB Nat); (Others) 15 Aug 1972 (10hd at dusk), Missiquash msh (D Finch, in NSBSN); 20 Oct 1972 (1), Tantramar R (R Hounsell, in NB Nat); 12 Aug-2 Sep 1974 (max 5 ad, 9 im), 3 Jul-12 Aug 1975 (3->1 im), 30 Jul 1977 (2 im), 21 Aug 1978 (2), J Lusby msh (in NSBSN).

Strait
Present Status: vagrant; (E) 14 Aug 1983 (2 im), Bayfield.
History: 28 Jul 1966 (3 ad), Lit Shemogue (A Squires, in Nat News).

Notes: birds here likely non-breeders (ad) or young of the year (im) from Maritimes colonies - nearest Saint John (150 km W) and Inkerman (200 km N).
Changes: reported more frequently starting mid-1960s, in response to new impmts - or more observers, fewer since late 1980s.

Yellow-crowned Night-Heron *Nycticorax violacea* [YcNH]

Fundy
Present Status: summer vagrant; 15 Sep 1985 (1), J Lusby msh (R Foxall, in NSB).
History: Aug 1974 (1 im), Sackville (photo'd; R Blacquiere; in NBNat, NBBRC rpt 2002-03); 29 June 1975 (1 im), J Lusby msh (CD, in NSBSN).

Notes: With over 60 records in N.S. 1961-85, and increasing frequency in N.B. since 1970, occurrence here is expectable - but needing good viewing opportunity to distinguish from BcNH.

White Ibis *Eudocimus albus* [WhIb]

Status: vagrant, no recent records.

Notes: 9 June 1976, Amherst Pt MBS (CD, in T), one of only 5 records (of nearly unmistakable species) in Maritimes.

Glossy Ibis *Plegadis falcinellus* [GlIb]

Fundy
Present Status: spring vagrant, some lingering; (T, others) 19 Apr 1981 (3), Sackville (E Dixon, T); 11 May 1981 (E Hudgins), 1 June 1983 (A Smith, in NB Nat), both Tintamarre NWA; 21 Jul 1985, Maccan (R Crosby, in NSB).
History: (M) 20-31 May 1971, Memramcook L (Wilcoxs); (T, others) 10 May 1958, Nappan (R Gray); 11 Aug 1974 (G Hansen, in NB Nat), 16-17 Apr 1975 (B Hughson), Sackville; 31 May 1971 (Whitman, B addendum), 9-31 May 1973 (A Smith et al), 8-18 May 1974 (many obs), Tintamarre NWA; 24 May 1971 (A Smith, K McAloney, B addendum), 29 Apr-15 May 1976 (max 8; CD et al), Amherst Pt MBS.

Strait
Present Status: spring vagrant; (Others) 11-17 Apr 1981 (5) Northport (J Wile, ST, R MacNeil, in NSB).
History: (Others) early Jul 1972, Baie Verte (A McInnis, in NB Nat), 8 May 1976 Cape Jourimain NWA, 17 Apr 1980 Bayfield (CWS files).

Notes: This species breeds north to Maine since 1972 (one unsuccessful attempt in N.B. 1986); our records (1971-85, except once 1958) show part of annual spring dispersal farther north, which seemingly slackened after early 1980s.

Greater Flamingo *Phoenicopterus ruber* [GreF]

Status: vagrant [hypothetically 'wild']; (M) Dorchester 10 Nov 1973, Dorchester.

Notes: later captured and airlifted to Bahamas - as 'Chignecto Rose' achieved temporary notoriety; Squires (1976) treated this as an escaped captive, but no plausible source was found - thus presumably originated far outside Maritimes (and region).

Turkey Vulture *Cathartes aura* [TuVu]

Fundy

Present Status: scarce spring and fall visitant; (Others) 31 Dec 1982, Centre Vill (fd weak, died soon after) (ST, in NB Nat); 26 Dec 1988, nr Sackville (W Montevecchi, in NB Nat); mid-Oct to 1 Nov 1999, Memramcook (A Clavette, in NB Nat).

History: (Others) 3 Jul 1974, Aulac R (W Barrow, in NB Nat); 16 May 1978 (1), Tantramar msh (R Burrows, in NSBSN).

Strait

Present Status: scarce spring and fall visitant; (Others) 22 Nov 1992, Murray Cor (R Doiron and O LeBlanc, in NB Nat); 23 Jun 1995, Cape Tormentine (C Adam, in NB Nat).

History: (Others) 1 shot nr Port Elgin fall 1962, mounted bird photo'd by (E) May 1963; 3rd wk Aug 1976, Port Elgin (A Smith, in NB Nat).

Notes: reported in Maritimes since before 1900, with increasing frequency after 1960, now annually; [breeding confirmed at one site in N.B. from 1998]; local records fit overall (lack of) pattern.

Black Vulture *Coragyps atratus* [BlVu]

Status: vagrant, several records; 3-4 Jul 1988, Bayfield (ST, A Smith, in NB Nat); others in 1990s [details lacking].

Snow Goose *Chen caerulescens* [SnGo]

Fundy

Present Status: irregular scarce transient; (E, others) 5 Mar 1987 (E Currie, in NSB) -3 May; max 200+ (4 flocks 25 Mar 1987, reports to E); 13 Dec 1994 (30, incl 1 Blue morph), over Tantramar msh (K Popma, in NB Nat).

History: (B) 7 Nov 1949 (4); (T) "almost annually" (in 1970s), mostly 1-5 in 2nd half Apr; 14 Oct 1978 (1), Amherst Pt MBS (also in NSBSN); (Others) at John Lusby msh, 25 Mar (1), 16-18 Apr 1973 (11), 18 Mar 1977 (1); stragglers 20 Jun 1973 (1), Missiquash R (B Turner, in NB Nat); (Distribution): at Memramcook L, Sackville, Midgic, Tintamarre NWA, Missiquash msh, Ft. Lawrence, Chignecto NWA (most).

Strait

Present Status: irregular scarce spring transient: (E, others) 12 Apr 1997 (1), Port Howe; (Others) 22 Oct (3), 12 Nov (1) 1993, Cape Jourimain NWA (C Adam, in NB Nat).

History: (Others) 31 Mar 1979 (3) Baie Verte; 19 Apr 1980 (1), Cape Jourimain NWA (CWS files).

Notes: Most in Maritimes are probably Greater Snow Geese (C.c. atlantica), which stage on St Lawrence R estuary, strayed to eastward; most small numbers accompanied CaGo flocks; one bird [with (probably local) CaGos] at Amherst Pt 16 Sep and 15 Oct 1989 might have escaped, as (1st) date seemed improbably early for migration.

Changes: All reports (except 1949) were since 1970, suggesting recent increase - paralleling population increases in both subspecies.

Canada Goose *Branta canadensis* [CaGo]

[much abstracted from Atlantic regional summary, Erskine 1997]

Fundy

Present Status: scarce year-round resident (introduced); common spring transient, uncommon in fall; (E) spring, earliest 14 Mar, mean 26 Mar (15 yr), to 5 May; max 850 (1985) declining to <100 (1993); fall 15 Oct-11 Nov, max 50; (Atlas, MNRS) breeding in 4 squares; nests (from 1981), 3 with eggs or ad inc 5-28 May, 2 + 3 broods with yg 25 May-31 Jul, nr-annually at John Lusby msh, Amherst Pt MBS, Maccan (var obs); (Distribution) at Grande Anse, Westcock, Rampasture, Sackville, Coles Island, Laplanche R (sod-farm), W Amherst, Chignecto NWA, Up Nappan; (CBCs) Sackville 8 yr (max 140, 1990), Amherst 7 yr (max 66, 1990).

History: (M) at Memramcook L - 1929-59, spring means 30 Mar (11 yr)-10 May (7 yr), max 100; fall 12 Oct-11 Nov, max 30; 1960-80, spring means 26 Mar (11 yr)-13 May (11 yr); max 206, fall 30 Sep-12 Nov, max 121; (P) spring arrivals, earliest 7 Mar 1942, mean 20 Mar (4 yr); max 21 Apr 1943 (2000), Aulac (per J Tingley); 13 May (80 in 3 flks), over Missiquash msh); (B) "Very common spring transient and fairly common fall transient", 7 Mar-21 May, max 300 (31 Mar 1950); 15 Sep-12 Dec; (E) 25 Mar-21 May, max 3000+ (30 Mar 1968); 21 Sep-2 Dec, max 125 (10 Oct 1965, Amherst Pt MBS); (Others) early stragglers at Sackville 27 Feb 1971 (25) (A Smith), 17 Feb 1974 (25) (I Cameron) (both in NB Nat); peak 10,000 (at once) at J Lusby msh spring 1968 (A Smith, in Van Zoost 1971); mass migration 14-17 Dec 1980 (1600, 6 flocks), J Lusby msh (CD, in NSB); (CBCs) Sackville 8 yr (max 350, 1971), Amherst 1969 (5).

Strait

Present Status: common spring transient, uncommon in fall; (E) spring, earliest 25 Mar, mean 3 Apr (6 yr), to 9 May, max 470; fall, 7 Oct to mid-Dec, max 1000; (Others) stragglers 28 Aug 1972 (2), Cape Jourimain (A McInnis, in NB Nat); (Distribution) also at Bayfield, Cape Spear, Malden, Port Elgin, Baie Verte, Tidnish, Northport, Linden, Port Howe, Port Philip; (CBCs) Cape Tormentine 15 yr, incl 3 yr >250 birds, with mass migration (1373+) from PEI 15 Dec 1984.

History: (E) 24 Mar-13 May, max 190 (26 Apr 1980, Linden to Port Philip); 26 Sep-11 Dec, max 535 (16 Nov 1968, Bayfield to Baie Verte); (CBCs) Cape Tormentine 9 yr (max 279, 1973).

Notes: migration dates now obscured by increasing resident birds, of which late summer flocks now to 120 birds at W Amherst, winter flocks to 35 birds.

Changes: spring migration stopover increased to max 10,000 nr Amherst Pt (1968), later decreasing to <100; presumably migration over area (mostly undetected) continued at or above former levels [as numbers staging in P.E.I. were highest on record in 1980s (Erskine 1997)]; local breeding (from introduced stock, still increasing) accounts for most birds seen in fall and winter: former larger flocks, arriving earlier and lingering later, suggested numbers stopping were greater in past.

Brant *Branta bernicla* [Bran; AtBr]

[much abstracted from Maritimes summary, Erskine 1988]

Fundy

Present Status - no recent records.

History: (P) 16 Apr 1943, 29 Mar and 4 Apr 1946, Aulac (per J Tingley); (Others) only later records 3 Nov 1956 Amherst Pt MBS (C Bartlett), 26-27 Nov 1967, Memramcook L (M); presumably birds migrating in spring from New Jersey to Gulf of St Lawrence still pass over Fundy area, where not reported since 1976 (T).

Strait

Present Status: scarce local spring transient; (E, others) 24 Mar-16 May; max 450 (27 Apr 1991, Northport and Linden, K McKenna, in NSB); straggler 17 Jul 1992 (1), Port Howe (J Taylor, in NSB); a few strays in fall; no local reports since 1994 (except CBC); (Distribution): at Amos Pt, Timber R, Northport, Linden (most), Port Howe; (CBCs) Cape Tormentine 1984 (5), 1998 (1).

History: (E) regular fall migration through our area ceased after 1930s, when spring movements decreased to <10% of former numbers; May surveys in 1960s regularly showed 400-700 birds, vs. 100-150 in 1980s (both ca.7% of eastern N Am population then, which varied widely with breeding success and winter survival; Erskine 1988).

Notes: decline locally parallels that for Maritimes generally (Erskine 1988); following eelgrass die-off in 1930s, 90+% of Atlantic population abandoned migration via Bay of Fundy and Gulf of St Lawrence in spring in favour of direct movements between New Jersey and James Bay.

Wood Duck *Aix sponsa* [WoDu]

Fundy

Present Status: scarce summer resident, uncommon summer visitant - moulters appear mid-late May, mostly males; (E, others) 3 Apr-12 Sep; max 60 (23 Aug 1991, Eddy msh, B Maybank, in NSB); (Atlas, MNRS) found in 6 squares, confirmed breeding in 3; 7 nests with eggs 3-29 Jun, at Pt de Bute (K McAloney), Missiquash msh (A Smith, K McAloney), Amherst Pt MBS (W McNutt); (Distribution) at Sackville, White Birch rd, Cookville, Tintamarre NWA, Jolicure, Eddy msh, Long L, Amherst Pt MBS, Maccan R, R Hebert; (CBCs) Sackville 1989, 1996 (singles).

History: (M) Memramcook L, 6 Apr-9 May, max 2; 5 Jul 1973 (1); 18 Aug-24 Sep, max 8; straggler 24 Oct 1977 (1); (B) "Rare summer resident and transient", 30 Apr-12 Oct, max 21 (moulters); one brood, 29 Jun 1949, Missiquash msh (per J Tingley); (E) 17 Jun-22 Sep, max 6 (18 Sep 1977); (Others) early straggler 3 Mar 1974, Tintamarre NWA (CD, in NB Nat); fall flocking, incl 6 Sep (70), 13 Sep (85) 1973 (CD, in NSBSN).

Strait

Present Status: scarce summer resident, scarce summer visitant (moulting); (E, others) 29 May 1999 (12), Port Elgin; 8 Jul-20 Sep; max 40 (20 Sep 1992, Baie Verte (ST, in NB Nat); (Atlas) found in 9 squares, breeding confirmed in 6; (Distribution) at Bayfield, Port Elgin, Baie Verte, Northport, Port Howe.

History: seemingly no reports nr Strait before 1982 (few lakes there, no impmts earlier).

Notes: Band returns showed that many moulters come here from New England (not N.B. - as suggested by T).

Changes: no evident change except more breeding now - in nest-boxes at recent DU impmts.

Gadwall *Anas strepera* [Gadw]

Fundy

Present Status: uncommon local summer resident; (E) 28 Mar-18 Nov, max 15; (MNRS) broods annually (max 4) from 1994 at Sackville Waterfowl Park, few noted elsewhere; (Distribution): also at Tantramar R, Mid Sackville, White Birch rd, Jolicure, Missiquash msh, Chignecto NWA (frequent 1975-93).

History: never noted by (M) and (B), nor by (E) until 1990s; (Others) 1st report 3 May 1968, Jolicure (R Hounsell, B addendum); breeding (1st in Maritimes) 1973, Missiquash msh (A Smith); initial focus at Amherst Pt MBS, arrivals 13 Apr-early May (max 8, 25 May 1980), fall max 28, 3 Nov 1979 (T).

Strait

Present Status: uncommon spring transient; (E, others) 9-25 Apr (4 yr), prs at Linden, except 25 Apr 1993 (4), Cape Jourimain NWA (ST, in NB Nat); (Atlas) 'probable breeding' at Cape Jourimain NWA.

History: 17-26 May 1973 (pr) (A McInnis); 8 May 1977 (2 pr) (ST), both Cape Jourimain NWA (in NB Nat); 4 Apr 1980 (2), Port Philip (CD, ST, in NSBSN).

Notes: recent arrival and settlement; after most birds shifted to Sackville WP 1992-94, arrivals were noted much earlier than previously.

Eurasian Wigeon *Anas penelope* [EuWi]

Fundy

Present Status: spring and fall vagrant; (E, others) 3 Apr-29 May (var obs); 19 Jun 1999 (R Stern, in NSB); only fall records, 25 Oct 1964, Memramcook L (M), 16 Nov 1999, Dorchester sewage lgn (R Cotsworth, in NB Nat); (Distribution) most records West Amherst and Amherst Pt, also Eddy msh, max 3m.

History: a few lingered into summer - 29 Jun-12 July 1975 (CD, D Finch, in Tufts 1986); 2 and 13 Jun 1977 (m), 26 May-3 Jul 1978 (m) (CD, in NSBSN).

Strait

Present Status: spring and fall vagrant; (Others) all lone males, 28-30 Apr 1991, 25 Apr 1993, 22 Jun 1993, 22-23 Jun 1995, Cape Jourimain NWA (ST, C Adam, in NB Nat); 26 Apr 1994 (H and J Brennan), 18 Apr 1999 (K McKenna), Linden (both in NSB); only fall reports, 4 Nov 1994, 2 Nov 1998, Cape Jourimain NWA (ST and O LeBlanc, K McKenna, in NB Nat); [seemingly not identified at Strait before 1991].

Notes: local records more frequent than other areas in N.S., and match timing elsewhere in Maritimes; Recoveries of birds banded in Iceland suggested that origin for (some/all of) these birds;

Changes: apparent increase probably a consequence of more, and more knowledgeable, observers, starting in 1970s.

American Wigeon *Anas americana* [AmWi]

Fundy

Present Status: fairly common summer resident; (E, others) arrival, earliest 20 Mar, mean 8 Apr (8 yr); max (spring) 10+, (summer) 90+ (moulting, Sackville w-f pk, 2000; E), (fall) 320 (Amherst Pt MBS 19 Oct 1985; F Lavender, in NSB); departure, mean 16 Oct (12 yr), latest 3 Nov; (MNRS, Atlas) 3 nests with eggs 3 Jun-1 Jul, at Tintamarre NWA (P Barkhouse), Amherst Pt MBS (W McNutt); broods in many impmts, confirmed in 5 squares; (Distribution) widely at wetlands, e.g. Up Dorchester, Sackville, Midgic, Jolicure, Missiquash msh, Eddy msh, Chignecto NWA, R Hebert.

History: earliest sightings 1948 Midgic (B), and 1953 Memramcook L (M); breeding (1st in Maritimes) Amherst Pt MBS 1957 (Bartlett 1960), increasing with impmts in 1970s; (M) at Memramcook L 1960-73, arrival, earliest 15 Apr, mean 22 Apr (7 yr); departure, mean 21 Oct (9 yr), latest 13 Nov, max 9; (Others) arrival 24 Mar 1979 (3), J Lusby msh (CD, in NSBSN); max 5-13 Oct 1974 (400), 1-10 Oct 1977 (500), 27 Aug-19 Sep 1978 (275->500), Amherst Pt MBS (CD, ST, in NSBSN).

Strait

Present Status: uncommon transient and summer resident; (E) arrival, earliest 1 Apr, mean 9 Apr (9 yr); departure 7 Oct (4 yr), latest 11 Nov; max, spring 10+, summer 6+, fall 15+; (Atlas) brood at Bayfield pd 1986 (only confirmed breeding at Strait - where few summer sightings); (Distribution) at Cape Jourimain NWA, Bayfield, Timber R, Port Elgin, Baie Verte, Northport, Linden.

Notes: arrival, settlement, and build-up in area noted; early arrivals and departures were 2 wk and 1 wk later than recently; population seemingly declined after 1970s.

American Black Duck *Anas rubripes* [BlDu; ABDu]

Fundy

Present Status: common summer resident and transient, scarce winter visitant; (E) arrivals, earliest 19 Mar, mean 24 Mar (13 yr); max (Mar-Apr) 70, (May-mid Jul) 30, (Sep-Nov) 125 [focused (or aerial) waterfowl surveys would find many more birds]; departure, mean 25 Nov (17 yr), latest mid-Dec; Jan-Feb records perhaps feral birds; (Atlas, MNRS) in nrly all squares, breeding confirmed in most; 26 nests (MNRS - all years), eggs 23 Apr-24 Jun (and many broods), (many obs); (Habitats) noted widely, in natural and impounded wetlands, inland and saltmarsh; extensive mixed pairing with Mall (latter often of feral origin) on impmts; (CBCs) Sackville 19 yr (max 405, 1999), Amherst 17 yr (max 206, 1981).

History: (M) nr Memramcook in 44 yr 1929-79, arrivals, earliest 22 Mar, mean 31 Mar (18 yr); max (Mar-mid May) 85+, (mid May-Jul) 23, (Sep-Nov) 215; (P) arrivals 1938-46, mean 18 Mar (5 yr), max 362 (30 Mar 1946), 125 (21 May 1938) (per J Tingley); (B) "Very common summer resident and transient. Fairly common in winter", max (spring) 500, (fall) 5,000; some hybridizing with Mall (Boyer 1959); (E) arrivals, earliest 12 Mar, mean 1 Apr (12 yr); max (spring) 50, (May-mid Jul) 12, (fall) 140; departures, mean 22 Nov (8 yr), latest mid-Dec; (Others) 1 Dec 1974 (800), John Lusby msh (CD, in NSBSN); (CBCs) Sackville 17 yr (max 270, 1973), Amherst 5 yr (max 172, 1973).

Strait

Present Status: common summer resident and transient, scarce winter visitant; (E) 6 Mar-8 Jan; max (Mar-Apr) 452, (May-mid Jul) 30, (Sep-Nov) 115; [Focused waterfowl surveys would

find far more birds]; (Atlas, MNRS) in all squares, confirmed in nrly all; 8 nests (all years) with eggs 29 Apr-23 Jun (and broods too), at Cape Jourimain NWA, Chapman Sett (var obs); (Habitats) noted widely, in all kinds of wetlands; little pairing with Mall noted nr Strait (no local 'source of infection'); (CBCs) Cape Tormentine 15 yr (max 1250 - 1999).
History: (E) 24 Mar-14 Dec, max (spring) 300+, (May-mid Jul) 14, (fall) 424; (CBCs) Cape Tormentine 10 yr (max 269, 1973).

Changes: evidently declined since 1930, but early data of little use as population indices; BBS indices, nearby rtes -3.3% (12), Ecozone +2.5% (55).

Mallard *Anas platyrhynchos* [Mall]

[introductions, releases, and free-flying 'park' birds, mostly in/nr Sackville from 1940s (Boyer 1959) obscured patterns outside urban area; treatment here excluded obviously tame 'park' birds, and most other sightings within 3 km of urban ponds with species]

Fundy

Present Status: uncommon summer resident, often prd with or courting BlDu; (E) seen in all months, but wintering mainly by 'park' birds; (Atlas, MNRS) in 8 squares, confirmed breeding (broods) in 4; 3 nests [all recent, likely 'park' birds] with eggs 13 May-7 Jun (C Ellingwood, N McLellan); (Distribution, away from Sackville) at Rampasture, Frosty Hollow, Breau Crk, White Birch rd, Tintamarre NWA, Eddy msh, Laplanche R, Amherst Pt MBS, Maccan R; (CBCs) Sackville [probably mostly 'park birds' in town, not excluded on CBCs] 19 yr (max 96, 1990), Amherst 5 yr (max 11, 1996).
History: (P) 'rare transient', e.g. 22 Apr 1939, Aulac; 20 Apr 1940, Missiquash msh; 1st introduction (to Missiquash msh, 92 birds summer 1941) failed, but dispersal perhaps provided McManus's 1st sighting(s) 1941; (M) later at Memramcook L 27 Mar-14 Nov, max 2; (B) status uncertain, owing to free-flying 'captive' stocks; (E) with 'feral' and 'park' birds excluded, only 1 Sep-13 Oct, max 10), mostly Amherst Pt MBS, also Midgic; (CBCs) Sackville (including 'park birds' in town) 12 yr (max 34, 1980), Amherst 3 yr (max 3, 1976).

Strait

Present Status: uncommon transient [breeding unproved, much less often seen prd with BlDu than nr Fundy]; (E) 25 Mar-11 Nov, max - spring 2pr1m, fall 20; (Atlas) found in 5 squares, no confirmed breeding; (Distribution) at Bayfield, Baie Verte, Northport, Linden, Port Philip; (CBCs) Cape Tormentine 7 yr (max 13, 1984).
History: (E) 9 Apr 1974 (1), Port Howe; (CBCs) Cape Tormentine 3 yr (max 6, 1979).

Notes: earlier increase largely arose from introductions and 'breeding-out' to wild by 'park birds' (Boyer 1966); (later) inter-breeding with BlDu mainly close to 'source of infection' (= Sackville), extending to White Birch impmts (7 km N) but less far in other directions; swamping of BlDu through introgression (forecast for Maritimes in early 1980s, as in Ontario earlier) still is not obvious here.

Blue-winged Teal *Anas discors* [BwTe]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 12 Apr, mean 21 Apr (13 yr); departure, mean 13 Oct (13 yr), latest 9 Nov, no flocks >100 since 1985; (MNRS, Atlas) 32 nests with eggs (all years) 19 May-23 Jul (many obs), at Memramcook L, Sackville, White Birch rd, Midgic, Tintamarre NWA, Jolicure, Ft Beausejour msh, Eddy rd, Amherst msh, Chignecto NWA, Maccan; confirmed breeding (broods) in most squares, esp in impmts; (Distribution) also noted at Grande Anse, Dorchester, Rampasture, Cookville, R. Hebert, Up Nappan.

History: (M) at Memramcook L 1933-73, arrivals, earliest 9 Apr, mean 25 Apr (13 yr), departures, mean 8 Oct (9 yr), latest 29 Oct, fall flocks to 300; (P) arrivals 1938-46, mean 8 Apr (5 yr) (per J Tingley); (B) "Locally very common summer resident and common autumn transient", max (spring) 25 pr, (fall) 300 at Midgic (late 1940s); (E) 15 Apr-4 Oct; max 400+ (4 Oct 1960, Amherst Pt MBS); (Others) earliest 29 Mar 1971, Sackville (A Smith, in NB Nat); [at Amherst Pt MBS in 1973, reports of 14 Oct (50), 21 Oct (100), 28 Oct (50) seem improbably many that late (CD, in NSBSN)].

Strait

Present Status: fairly common transient, uncommon summer resident; (E) arrival, earliest 1 Apr, mean 19 Apr (4 yr); latest in fall 1 Oct; (Atlas) confirmed in 7 squares [impmts mostly in wooded areas); (Distribution) at Blacklock Brk, Cape Jourimain NWA, Bayfield pd, Upper Cape, Baie Verte, Northport, Linden, Port Howe, Port Philip.

History: (E) 26 May-29 Sep; max 200+ (28 Sep 1968, Cape Jourimain NWA).

Changes: probably some decrease since 1960s despite recent use focused in impmts.

Northern Shoveler *Anas clypeata* [NSho]

Fundy

Present Status: uncommon summer resident; (E,M, others) arrival, earliest 2 Apr, mean 21 Apr (11 yr); max 30 (14 Sep 1998, Memramcook sew-lgn; R Arsenault, in NB Nat); departure, mean 29 Oct (10 yr); latest 5 Dec 1998 (15), Dorchester sew-lgn (K Popma, in NB Nat); (Atlas, MNRS) breeding confirmed (broods) at Sackville, White Birch rd, and Amherst Pt MBS; nest - eggs 19 Jun, Tintamarre NWA (R Milton); (Distribution) now mostly in sewage lagoons, e.g. Memramcook, Dorchester, Rampasture, Sackville, Mid Sackville, White Birch rd, Tintamarre NWA, Eddy msh, Chignecto NWA, Maccan R.

History: (M) first 1948, max 2 thereafter, with no breeding; (B) "Very rare", 1st N.B. breeding at Midgic 1948; (E) 12 Apr-28 Oct, max 5; only noted 3 times before 1978 [few impmts until 1970s]; (Others) max 16 Aug 1972 (30), Jolicure (D Finch, in NB Nat); latest 14 Nov 1973 (3), Amherst Pt MBS; earliest 14 Apr 1979 (6), Eddy msh, 6 Apr 1980 (pr), Sackville (CD,ST, in NSBSN).

Strait

Present Status: scarce summer resident, 18 Apr 1999 (K McKenna, in NSB)-7 Sep; noted at Bayfield pd, Baie Verte pd, Linden.

History: brood 13 Jul 1974, Cape Jourimain NWA (ST, MNRS); (MNRS) nest - eggs 27 May-1 Jun, Cape Jourimain NWA (A McInnis).

Changes: some increase, still uncommon; breeding localized at more fertile sites (incl impmts).

Northern Pintail *Anas acuta* [Pint; NoPi]

Fundy

Present Status: uncommon transient and summer resident; (E, others) arrival, earliest 31 Mar, mean 8 Apr (13 yr); max spring 120 (20 Apr 1991, Amherst Pt; B Maybank, in NSB), fall 125 (11 Nov 1999, DU impmt nr Dorchester; A Clavette, in NB Nat); departure, mean 16 Oct (6 yr), latest 11 Nov; (Atlas, MNRS) breeding confirmed (broods) in 6 squares; 20 nests (all years) with eggs 1 May-1 Jul (many obs), at Highmarsh rd, Tintamarre NWA, Jolicure, Missiquash msh, Aulac msh, Amherst msh; also noted at Memramcook L, Rampasture, Sackville, White Birch rd, Midgic, Eddy rd, Amherst Pt, R Hebert.

History: (M) at Memramcook L in 20 yr 1935-76, arrival, earliest 26 Mar 1969 and 1973, mean 2 Apr (8 yr); max (spring) 47, (summer) 5 + broods, (fall) 20; departure, mean 20 Oct (8 yr), latest 14 Nov, straggler 29 Nov 1967; broods 1965-70; (P) common nr Midgic by 1940, arrivals 1938-46, mean 6 Apr (7 yr) (per J Tingley); (B) "Locally very common summer resident and common migrant", breeding census at Midgic 1949-50 140-150 adults, 14 broods found; (E) 10 Apr-31 Oct; max 100 (1 Oct 1961, Amherst Pt MBS); (Others) later max 12 Apr 1980 (200), 1 Oct 1977 (200) (CD, in NSBSN); (Distribution) other former breeding, besides locations active during Atlas, at Aulac R, Tintamarre NWA.

Strait

Present Status: scarce transient; (E) 2 Apr-mid-May, max 30+; few in summer; 9 Aug-21 Nov, max 6; (MNRS) broods Cape Jourimain NWA 1 Jul 1983 (D Christie), Beckwith 26 Jul 1989 (J Taylor); (Distribution) at Cape Jourimain NWA, Bayfield, Timber R, Baie Verte, Beckwith, Linden, Port Howe, Port Philip; (CBCs) Cape Tormentine 1981, 1983 (both 3).

History: (E) 11 Apr-29 Sep, max 40; at Cape Jourimain NWA, Bayfield, Port Elgin, Baie Verte, Tidnish, Linden; (Others) latest 25 Nov 1980 (21), Cape Jourimain NWA (ST, in NSBSN); (CBCs) Cape Tormentine 1973 (5).

Changes: following (1st?, or re-?) appearance in early 1930s, and breeding here (by 1937), increased to mid-1950s (Squires 1976); major decline after 1970s.

Green-winged Teal *Anas carolinensis** [GwTe; AGwT]

Fundy

Present Status: fairly common summer resident and common transient; (E,M, others) arrivals, earliest 30 Mar, mean 14 Apr (14 yr); max (Apr-May) 250, Amherst msh (B Maybank, in NSB); (June-Jul) 20; (Sep-Nov) 140 (27 Oct 1985, ST, in NSB); departure, mean 27 Oct (15 yr), latest 14 Nov; (Atlas) noted in 9 squares, breeding confirmed in 7; (Distribution) at Memramcook L, Rampasture, Sackville, Aboushagan rd, Midgic, Tintamarre NWA, Eddy msh, Chignecto NWA, Maccan R, R Hebert; (CBCs) Sackville 1984, 1996 (singles), Amherst 1998 (2), 1999 (38), 2000 (1).

History: (M) nr Memramcook in 26 yr 1932-79, arrivals, earliest 29 Mar, mean 18 Apr (14 yr); max (Apr-May) 200, (Jun-Aug) 40, (Sep-Nov) 283; departure, mean 24 Oct (14 yr), latest 27 Nov; (P) arrivals 1938-46, mean 1 Apr (5 yr) (per J Tingley); (B) "Uncommon summer resident and common transient", 4 Apr-21 Dec, max (Apr-May) 107, (Sep-Nov) 500; (E) 10 Apr-11 Nov, max (Apr-May) 90, (Jun-Jul) 33, (Sep-Nov) 300; (CBCs) Sackville 1967, 1968, 1969 (singles).

Strait

Present Status: uncommon summer resident and common transient; (E) arrivals, earliest 1 Apr mean 12 Apr (8 yr); max (Apr-May) 28, (Jun-Jul) 4, (Sep-Nov) 200; latest 13 Nov;(Atlas) in 7 squares, confirmed in 3; (Distribution) at Blacklock Brk, Cape Jourimain NWA, Bayfield, Upper Cape, Port Elgin, Baie Verte, Tidnish, Amherst Shore Prov Park, Northport, Linden, Port Philip.

History: (E) 24 Mar-15 Nov, max (Apr-May) 21, (Sep-Nov) 350; Changes: no obvious change in status. * The European form (A. crecca, recently re-diagnosed as a separate species) was detected in spring "almost annually at Chignecto NWA" 1974-81 (T), only more recent report 25 Apr 1993, Cape Jourimain NWA (ST, in NB Nat).

Canvasback *Aythya valisineria* [Canv]

Present Status: vagrant; (E) 31 Mar 1997 (m), Laplanche R nr Amherst.

History: not seen by (M), (B), nor (E) except as above; (T) "near the mouth of the Tantramar River" 20-22 Dec 1973 (m), incl CBC (A Smith); [no reports from Strait].

Changes: data too scarce for trends.

Redhead *Aythya americana* [Redh]

Fundy

Present Status: scarce summer resident briefly, rare after mid-1980s, none since 1992; (E) 12 Sep 1981 (5), 30 Apr 1983 (m); (Others) at Amherst Pt MBS 18 Apr (pr), 4 and 12 Jul (2) 1981 (CD, in NSB); 23 Apr 1982 (2) (CWS files); 30 Apr 1983 (m) (Blomidon Nat Soc, in NSB); 16 Sep 1985 (5) (I McLaren, in NSB); also 19 May 1983 (pr) Missiquash msh (CWS files); Sackville w-f pk 15 Apr 1990 (pr) (D Gibson and J Landry, in NB Nat); 9 Jul 1984 (f), 6 Jun 1992 (f), Eddy msh (F Lavender and P MacLeod, in NSB); (Atlas) pr at Amherst Pt [no breeding confirmed in Maritimes]; (Distribution) noted - in our area - mainly at Amherst Pt MBS.

History: (M) at Memramcook L 14 Nov 1968 (1); (T) "annually at APBS (= Amherst Pt MBS) from 1977-80", 18 Apr-23 Oct, max 3 pr, brood 1 Jul 1977 (CD), single sightings at John Lusby impmts and Tintamarre NWA.

Strait

Present Status: now vagrant, [species bred Wallace Bay NWA 15 km E of area sev yrs ca.1980] (Others) 26 Sep 1987 (f), Port Howe (J Taylor, in NSB).

History: (Others) 19 May 1974 (m) (D Christie); 8 May 1977 (6 pr) (ST), both Cape Jourimain NWA (in NB Nat); 4 Apr 1980 (pr) Port Philip (T).

Changes: appeared in area after DU impoundments developed, bred for a few years, then gradually disappeared, a pattern shared with some other wetland species here, exploiting peak of aquatic invertebrates after flooding, abandoning area when food dwindled.

Ring-necked Duck *Aythya collaris* [RnDu]

Fundy

Present Status: common summer resident; (E,M) arrival, earliest 2 Apr, mean 18 Apr (13 yr); max (Apr-May) 130, (Jun-Aug) 32, (Sep-Nov) 65; departure, mean 24 Oct (15 yr), latest 8 Nov, straggler 20 Nov 1982; (Atlas, MNRS) found in 8 squares, breeding confirmed in 4; 43 nests (all years) with eggs 13 May-17 Jul, at Tintamarre NWA, Missiquash msh, Eddy msh, Amherst Pt MBS, Maccan (many obs); (Distribution) also noted, often in impmts, at Memramcook L, Dorchester, Sackville, White Birch rd, Cookville, Jolicure, John Lusby msh (CBCs) Sackville 1981 (1).

History: (M) at Memramcook L, noted first 7 May 1933 (2) and 15 Sep 1940 (4), in 17 yr 1947-77, arrival, earliest 7 Apr, mean 16 Apr (10 yr); max (Apr-May) 100, (Jun-Aug) 35+, (Sep-Nov) 80; departure, mean 18 Oct (10 yr), latest 1 Nov, once to 16 Nov 1968; (P) first noted at Midgic 1939, scarce into early 1940s; arrivals 9 Apr 1944-46 (per J Tingley); (B) "Common summer resident and fairly common transient", 9 Apr-18 Nov, max 25+; (E) 8 Apr-1 Oct, max 50; (CBCs) Sackville 1980 (1, injured bird).

Strait

Present Status: fairly common summer resident, (E, others) 17 Apr (E) -5 Nov 1988 (Baie Verte, A and D White, in NB Nat); max 10; (Atlas, MNRS) found in 11 squares, breeding confirmed in 6; 3 nests (all years) with eggs 14 Jun-25 Jul, nr Chapman Cor, S of Bayfield (E Hickey, C

MacKinnon); (Distribution) also noted nr Square L, Bayfield, Baie Verte, Linden, Port Howe.

History: (E) 17 Jun 1968 (pr), Anderson Sett.

Changes: (re-?) appeared in 1930s, increased slowly through 1940s, and greatly to 1960s, stable since.

Greater Scaup *Aythya marila* [GrSc]

[many Scaups seen were not identifiable to species; most (esp. those on salt water) were assumed this species unless proved otherwise].

Fundy

Present Status: scarce spring transient, a few linger to summer; (E,M) 2 Apr-27 May, max 4 pr; 3-17 Jul (2); (Distribution) at Grande Anse, Sackville, White Birch rd, John Lusby msh, Amherst Pt MBS.

History: (M) at Memramcook L in 7 yr 1935-57, and annually 1963-73, 16 Apr-31 May, max 16; 2 Sep-30 Nov, max 57; (B) "Rare transient," definite records 14 Oct-11 Nov, max 8, at Morice L, Amherst Pt MBS; (E) 13 May 1963 (1), 31 Oct 1964 (10), Amherst Pt; 1 Aug 1977 (2, sp?), Sackville.

Strait

Present Status: uncommon transient; (E) 22 Mar-27 Apr, max 60+; 21 Sep-21 Nov, max 55; (Distribution) at Cape Jourimain NWA, Cape Tormentine, Baie Verte, Tidnish R mouth, Northport, Port Howe; (CBCs) Cape Tormentine 7 yr (max 38, 1992).

History: (E) 5-28 Apr, max 62; 25-28 Sep, max 4; at Cape Jourimain NWA, Northport, Port Philip; (Others) also 22 Mar 1980 (9), Northport, 4 Apr 1980 (80), Port Philip (ST, in NSBSN); (CBCs) Cape Tormentine 1973 (11), 1974 (18).

Changes: no strong suggestion of changed status.

Lesser Scaup *Aythya affinis* [LeSc]

Fundy

Present Status: scarce transient and summer visitant (no suggestion of breeding); (E, others) 17 Apr-27 Aug, 25 Oct; max 12 (29 Apr 1989; D Christie and B Dalzell); (Distribution) at Dorchester (sew lgn), Sackville (sew lgn, w-f park), Eddy msh, Amherst Pt MBS.

History: (M) confident IDs 15 May 1973 (3), 30 Sep, 7 Oct (1), at Memramcook L; (B) "Rare transient", definite record at Amherst Pt MBS 28 Apr 1950 (pr); (E) none positively identified here in 1960s; (T) "Uncommon transient. Somewhat more regular on local marshes and ponds than the Greater Scaup [!?]... annually in migration", e.g. 3-11 Nov 1979 (1) (ST, in NSBSN).

Strait

Present Status: scarce transient; (E, others) spring 1991, 2 Jun 1994 (3), (ST, in NB Nat), 9 Oct (E) - 4 Nov (ST, in NB Nat); max 25 (ST, B Dalzell, in NB Nat); (Distribution) at Cape Jourimain NWA, Port Elgin (sew lgn), Baie Verte (pond); (CBCs) Cape Tormentine CBC 1990 (1), Murray Cor (ST).

History: seemingly not reported nr Strait before 1990.

Note: Some scaups entered as GrSc may have been this species, especially inland.

Changes: too few records to show trend.

Common Eider *Somateria mollissima* [CoEi]

Fundy

Present Status: irregularly common transient, scarce summer visitant; [a few pr breed at Grindstone I 5 km SW of area; migrants mostly pass over unseen or unnoted; inland records mostly 'fall-out' (from migration or hunting), or power-line casualties]; (E,M, others) 14 Apr-15 May; max 1450 (18 Apr 1998, nr Dorchester, K Popma, R Miller, in NB Nat); 5 Jun-1 Sep, max 60+, also S-ward movement in Memramcook val 28-29 Jun, 13 Jul 2000 (R Arsenault, A Clavette, in NB Nat); 17 Sep-17 Nov, max 100+; (Distribution) at and nr Memramcook L, Grande Anse, Cape Maringouin, Rockport, Sackville, Morice Brk, Long L; (CBCs) Sackville 4 yr (max 135); Amherst 3 yr (max 120).

History: (M) nr Memramcook, in 26 yr 1943-80, 6 Feb-3 Jul, max 1500; 25 Sep-25 Dec, max 500 [see fuller summary of McManus's records of visible migration, cited by Erskine and Smith 1986]; off Grande Anse 1972-79, 1 May-2 Dec, max 52; (P) migration at Aulac 20 and 22 Mar 1946 (J Tingley); (B) "Transient, commmon in some years", 10 Apr-16 Jun, max 150; (E) 23 Apr (5); 9 Jul-22 Aug, max 24; 12 Sep-21 Nov, max 300; (Others) 2 Oct 1970 (200 fly S) nr Dorchester (D Christie and Majkas, in NB Nat).

Strait

Present Status: scarce summer visitant, fairly common transient [ice cover limits over-wintering]; (E) 25 Mar-27 Apr, max 2; 17 Jun-18 Aug, max 15+; 2 Sep-17 Dec, max 55; (Distribution) at Cadman Pt, Cape Jourimain NWA, Cape Tormentine, Cape Spear, Tidnish Dock, Amherst Shore Prov Park; (CBCs) Cape Tormentine all 20 yr (max 91).

History: (E) 24 Mar-22 Apr, max 40; 10-26 July, max 25; 27 Sep-28 Nov, max 450; winter 14 Jan 1967 (1), 13 Jan 1968 (35); (Others) summer max 1 Jul 1975 (100), Cape Jourimain NWA (CD, in NSBSN); (CBCs) Cape Tormentine 18 yr (max 156).

Notes: apparent cessation of migration nr Fundy after 1980 evidently an artifact of change in RMcM observation and record-keeping patterns.

Changes: no good evidence of status change.

King Eider *Somateria spectabilis* [KiEi]

Present Status: (hypothetical) vagrant, 2 Sep 1989 (imm or moult m), Cape Jourimain (Mary Majka, in NB Nat).

Notes: [scarce on Atlantic coasts of Maritimes, very rare on Gulf coasts; only other N.B. record (30 Aug 1967, Kouchibouguac) (Squires 1976); "accidental" (= <1 record per decade; P.E.I. checklist); not recorded in N.S. except Atlantic coasts]; this record is clearly exceptional, and ID deserves more details.

Harlequin Duck *Histrionicus histrionicus* [HaDu; HarD]

Fundy

Present Status: [no known records].

Strait

Present Status: vagrant; 23-30 Jan 1974 (m), Cape Tormentine (ST, in NB Nat); mid-Apr 2000 (pr), off Cape Jourimain NWA (K Popma).

Notes: occurs locally, usually at low density, on both Gulf of St Lawrence and Bay of Fundy, in suitable rocky shore habitat, so might be seen occasionally on either side of isthmus.

Surf Scoter *Melanitta perspicillata* [SuSc]

Fundy

Present Status: irregularly common spring and scarce fall transient; scarce summer visitant (non-breeding);(E, others) 18 Apr-17 May; max 4000 (late Apr 2000, Beaumont-Belliveau Vill Arsenault, in NB Nat); 12-27 Sep, max 12; also 11-18 Jul, singles; (Distribution) at Grande Anse, Cape Maringouin, Sackville, White Birch rd.

History: (M) 15 Apr-6 Jun, max 500 (flying over Memramcook, 15 Apr 1960); 7 May 1973 (57), Memramcook L;(T) off John Lusby msh 20 Apr 1976 (2000+).

Strait

Present Status: scarce spring and uncommon fall transient; (E, others) spring, 18 Apr 1998 (104; Cape Jourimain, K Popma et al, in NB Nat); fall, 7 Sep-19 Nov; max 250 (10 Sep 1985, Tidnish; ST, in NSB); (Distribution) along shores Cape Jourimain NWA to Baie Verte, Tidnish to Port Howe; (CBCs) Cape Tormentine 12 yr (max 8, 1992).

History: (Others) 12 Apr 1980 (8) off Cape Jourimain NWA (CWS files); (E) 16 Sep-2 Oct; max 450 (Cape Jourimain 28 Sep 1968); (CBCs) Cape Tormentine 4 yr (max 11).

Notes: more seen formerly, might only reflect more attention to [overland] seaduck movements then?

White-winged Scoter *Melanitta deglandi* [WwSc]

Fundy

Present Status: vagrant in spring and (non-breeding) summer; (M) 20 Apr 1984 (1), Memramcook L; (Others) 18 Apr 1998, Dorchester (K Popma, R Miller, in NB Nat).

History: (M) 3-4 Jul 1965, Memramcook L (1); 13 Jun 1974, Grande Anse (60).

Strait

Present Status: spring and summer vagrant, uncommon fall transient; (Others) 18 Apr 1998 (3), Baie Verte (K Popma et al, in NB Nat); (E) 7 Sep-17 Dec, max 5; (Distribution) at Cape Jourimain NWA, Cape Tormentine, Seagrove, Amherst Shore; (CBCs) Cape Tormentine 13 yr (max 50, 1991).

History: (E) off Cape Tormentine 16 Jun 1978 (40); summer sightings include non-breeders (adult plumage) and subadults, may moult offshore (around P.E.I.?); (Others) 12 Apr 1980 (4), Cape Jourimain NWA (CWS files); (CBCs) Cape Tormentine 7 yr (max 251, 1974).

Notes: data too sparse to show trends.

Black Scoter *Melanitta nigra* [BlSc]

Fundy

Present Status: irregularly common spring and scarce fall transient; scarce summer visitant (non-breeding); (M) 3-22 May, max 300; 1 Jul-21 Aug, max 49; 12 Sep-25 Nov, max 13, all Grande Anse; (E, others) 6 Apr-22 May; max 2114 (18 Apr 1998, Ft Folly Pt; N Belliveau et al, in NB Nat); 4 Sep-25 Nov, max 13; (Distribution) also noted Sackville, Morice L, Amherst Pt MBS;

History: (M) 20 Apr-2 Jun, max 151, incl migrating flocks over Memramcook; in summer 19 Jun-19 Aug, max 6, mostly Grande Anse; (E) spring, 13 Apr-2 Jun; (T) off John Lusby msh 20 Apr 1976 (400+).

Strait

Present Status: scarce spring and fall transient; (E) 18 Apr 1998 (30); 1 Oct-17 Nov, max 20+; (Distribution) at Cape Jourimain NWA, Amherst Shore Prov Park, Port Philip; (CBCs) Cape Tormentine 13 yr (max 55, 1992).

History: (Others) 12 Apr 1980 (1), Cape Jourimain NWA (CWS files); (CBCs) Cape Tormentine 6 yr (max 100, 1974).

Changes: no evidence of status change, except varying numbers summering at Grande Anse.

Long-tailed Duck (Oldsquaw) *Clangula hyemalis* [LtDu;(Olds)]

Fundy

Present Status: scarce spring transient; (E) in 5 yr, 13 Apr-12 May, max 4; (Distribution) at Ft Folly Pt, Sackville, White Birch rd.

History: (M) at Memramcook L only 7 yr 1929-73, 2 Apr-24 May (max 9), 9 Sep (1); Grande Anse, 2 Dec 1976 (1); (E) 14 Oct 1960 (f), Middle Sackville; (T) off John Lusby msh 20 Apr 1976 (100+).

Strait

Present Status: uncommon spring and common fall transient, occasional in winter; (E, others) 25 Mar-21 Apr, max 7; 14 Oct-20 Dec, max 50 (27 Oct 1985, Linden; ST, in NSB); 8 Feb 1984 (9), Cape Tormentine; (Distribution) along shores Cadman Cor to Cape Tormentine, Cape Spear to Port Elgin, Tidnish to Port Philip; (CBCs) Cape Tormentine all 20 yr (max 1184, 1986).

History: (E, others) in winter 7 yr, max 35; 7 Jan 1967 (40), Cape Tormentine (D Christie, in Nat News); (Others) summer stragglers 18 Aug 1973 (6), Cape Jourimain (NBFN/NSBS trip); high count 27 Dec 1977 (175), Tidnish (D Finch et al, in NSBSN); (CBCs) Cape Tormentine all 20 yr (max 732, 1978).

Notes: no evidence of changed status.

Bufflehead *Bucephala albeola* [Buff]

Present Status: scarce transient; (E) 18 Apr-17 May, max 5; 30 Oct (2x), max 3; (Distribution) at Sackville, White Birch rd, Amherst Pt MBS; Port Elgin, Baie Verte pd; (CBCs) Cape Tormentine 4 yr (max 6, 1994).

History: (M) at Memramcook L 1964-71, 18 Oct-23 Nov, max 3; (Others) 2 Jan 1960 (1), Baie Verte (D McPhail, in Nat News); (CBCs) Cape Tormentine 4 yr (max 21, 1973).

Notes: [species termed 'common' in N.B. and 'fairly common' in N.S., but nearest locations where regular (small nos only) are Parrsboro and Apple River (40 km S)]; our area is peripheral to main range in Maritimes.

Changes: too few to show trends.

Common Goldeneye *Bucephala clangula* [CoGo]

Fundy

Present Status: uncommon transient, a few may winter; (E) 4 Apr-12 May, max 7; 2-27 Oct 1999, max 2; 15 Feb 1998 (1); (Distribution) at Memramcook L, Sackville, White Birch rd, Amherst Pt MBS, Up Nappan; (CBCs) Sackville 11 yr (max 12), Amherst 7 yr (max 5).

History: (M) nr Memramcook in 16 yr 1932-73, 1 Apr-16 May, max 12; 13 Oct-22 Nov, max 9; (B) "Uncommon transient", 14 Mar-5 May, max 40; 10 Oct-12 Dec, max 50; (E) 14 Mar-23 May, max 5; 31 Oct-4 Nov, max 10; (CBCs) Sackville 3 yr (max 3), Amherst 4 yr (max 7).

Strait

Present Status: fairly common transient, a few winter; (E, others) 24 Mar-25 Apr, max 300 (24 Mar 1984, Northport and Port Howe, ST); 19 Oct-19 Nov, max 20; 8 Jan-6 Mar, max 12; (Distribution) at Bayfield, Upper Cape, Baie Verte, Tidnish, Northport, Cameron Bch, Port Philip; (CBCs) Cape Tormentine all 20 yr (max 706).

History: (E) 23 Mar-22 Apr, max 50; 5 Nov-14 Dec, max 40; (Others) spring max 30 Mar 1980 (400), 28 Mar 1981 (400), Tidnish (ST, in NSB); (CBCs) Cape Tormentine 16 yr (max 337) [these mainly at extreme telescope range on Baie Verte, thus likely under-estimated].

Changes: no strong evidence of status change.

Barrow's Goldeneye *Bucephala islandica* [BaGo]

Fundy

Present Status: vagrant, 3 May 1992 (m), Eddy msh (D Currie, in NSB).

History: 4 Mar 1968 (m), Sackville (A Smith), 14 Apr 1980 (m), Amherst Pt MBS (CD, in T).

Strait

Present Status: scarce in migration and in winter; (Others) 28 Mar 1981 (5), Northport, Tidnish; 24 Mar 1984 (4m,1f), 16 Mar 1988 (4), Northport; 23 Oct 1985 (2), Port Elgin sew lgn; 16 Feb 1986 (f), Port Philip (ST, F Lavender, in NSB and NB Nat); 5 Nov 1993 (2), Cape Jourimain NWA (ST, in NB Nat); (CBCs) Cape Tormentine 1991 (1, Murray Cor) (ST).

History: 27 Dec 1977 (2), Port Philip (D Finch et al, in NSBSN); 5 Nov 1978 (2), 3 Nov 1979 (2), Port Elgin; 28 Jan 1979 (1), Northport; 2 Nov 1980 (2), Tidnish Dock (ST, in NSB).

Notes: [species winters near-annually at Pugwash, 8 km E of area, known there since 1963 (E)].

Changes: too few to show convincing trends.

Hooded Merganser *Lophodytes cucullatus* [HoMe]

Fundy

Present Status: scarce spring and fall transient; (E, others) 7 Apr 1981 (m), 29 Apr 1982 (2f) (ST, in NSB); 18 Sep -17 Nov, max 4 (D Currie, in NSB); (Distribution) nr Memramcook, Sackville, Eddy msh, Amherst Pt MBS; (CBCs) Sackville 1990 (1), 1996 (2).

History: (M) 24 Oct 1968 (2), Memramcook L; (B) 8 Oct 1949 (3), Midgic; (E) 23 Jun 1979 (1), Up Nappan; (T) "almost annually during the past decade... April and late Oct.-early Nov.", max 8; (CBCs) Sackville 1979 (1), 1980 (2).

Strait

Present Status: scarce spring and uncommon fall transient, uncommon summer resident; (E, others) 27 Mar-2 Apr, max 4; 6 Aug; 29 Sep 1991 (Linden, J Taylor, in NSB)-5 Dec 1999 (Shemogue, ST, in NB Nat); max 50 (2 Nov 1998, Linden, K McKenna, in NSB); (Atlas, MNRS) on impmts (Amherst Hd-Port Howe) confirmed - broods - in 6 squares; (Distribution) at Bayfield, Baie Verte, Tidnish R, Shinimicas R, Linden, Port Howe.

History: (CBCs) Cape Tormentine 1969, 1972 (singles).

Changes: sightings more frequent recently, but numbers still low; recent arrival and breeder, using nest-boxes (erected for WoDu) on DU impmts created in 1970s.

Common Merganser *Mergus merganser* [CoMe]

Fundy

Present Status: uncommon transient, a few winter (no recent breeding evidence); (E) 10 Mar-20 Apr, max 70; 30 Oct-18 Dec, max 60+; 25 Jan 1986 (1), 19 Feb 1983 (3); (Habitats, Distribution) on creeks and river-mouths, nr Allen Crk, Sackville, Amherst Pt MBS, Nappan R, Maccan R; (CBCs) Sackville 18 yr, max 205 (1999), Amherst all 20 yr, max 264 (1998).

History: (M) nr Memramcook in 20 yr 1932-80, 22 Mar-21 May, max 150+; 3 Oct-12 Dec, max 7; (B) "Uncommon transient, very rare in winter", 24 Feb-9 May, max 15, 31 Oct-7 Jan; (E) 11 Feb-15 Apr, max 5; (MNRS) brood at Maccan R 1963 [reported as RbMe (A Madden), more likely this species]; (CBCs) Sackville 15 yr, max 53 (1973), Amherst 7 yr, max 98 (1973).

Strait

Present Status: uncommon transient, a few in winter (no recent breeding evidence); (E) 3 Mar-26 Apr, max 35; 19 Sep-18 Dec, max 46; 19 Feb 1983 (14); (Habitats, Distribution) on rivers and estuaries, nr Blacklock Brk, Murray Cor, Cape Jourimain NWA, Port Elgin, Tidnish, Northport, Linden, Port Philip; (CBCs) Cape Tormentine 16 yr (max 44, 1986).

History: (E) 18-26 Apr, max 10; 5 Nov-22 Dec, max 7; (Others) spring max 4 Apr 1980 (210), Port Philip (ST, in NSBSN); (MNRS) broods Port Elgin (Gaspereaux R) and Tidnish, both 4 Jun 1966 (D Dennis, W McNutt); (CBCs) Cape Tormentine 10 yr, max 54 (1974).

Notes: Broods seen at Oxford and River Philip (upriver) in 1977, 1984, 1987 might have descended to estuary (latter in our area) before attaining flight.

Changes: no suggestion of status change, except no recent reports of breeding (formerly scarce).

Red-breasted Merganser *Mergus serrator* [RbMe]

Fundy

Present Status: uncommon local spring transient; scarce fall transient; (E) arrival, earliest 6 Apr, mean 18 Apr (11 yr); max 70; only fall record 13 Oct 1998(1), Sackville WP; (Habitats, Distribution) mostly on saltmarsh ponds; at Memramcook L, Grande Anse, Pecks Pt, Rampasture, Sackville, Morice L, John Lusby msh, Amherst Pt MBS; (CBCs) sporadic reports (confusion with f/imm CoMe possible), Sackville 7 yr, max 70 (1998); Amherst 5 yr, max 25 (1998).

History: (M) at Memramcook L in only 7 yrs 1935-77, 5 Oct-20 Nov, max 4.

Strait

Present Status: irregularly common spring and scarce fall transient; scarce summer resident; (E, others) spring, earliest 28 Mar, mean 12 Apr (17 yr), latest 27 May, max 1000 (13? Apr 1984, Northport; I McLaren, in NSB); fall, earliest 26 Sep, mean 7 Oct (5 yr), max 500 (22 Oct 1991, Port Howe, J Taylor, in NSB); (Atlas) found in 5 squares, 4 broods in 3 squares (Cape Jourimain NWA, Northport/Linden, Port Philip - upriver), all 1990; (CBCs) Cape Tormentine all 20 yr (max 274, 1981).

History: (E) spring, earliest 10 Mar 1967, mean 29 Mar (5 yr), latest 29 May 1961, max 100+ (22 Apr 1978); fall, earliest 27 Sep 1980, mean 5 Oct (5 yr), latest 23 Dec; max 575+ (26 Oct 1968); stragglers 14 Jan 1967 (1), 13 Jan 1968 (17); (Others) max on Strait, 4 Apr 1980 (1400), Port Philip, 15 Nov 1978 (1000+), Tidnish Dock (ST, in NSBSN); (CBCs) Cape Tormentine 18 yr (max 206, 1978).

Changes: no obvious status change, but more in Dec (CBCs) after 1975 (more observers, often less ice); breeding (on Strait) not confirmed until 1990.

Ruddy Duck *Oxyura jamaicensis* [RuDu]

Fundy

Present Status: scarce transient, former sporadic summer resident; (E) 11-18 May; 6-28 June; 4 Oct- 6 Nov; singles; (Others) 7 Apr 1984 (ST), 11 Apr 2000 (A Clavette); 12 Jul 1990 (1); 26 Jul- Aug 1981 (20) (CD); 6 Sep 1984 (2; D Currie) (most in NSB), most Amherst Pt MBS; (MNRS) bred, incl eggs laid parasitically in RnDu nests, at Amherst Pt MBS 1979-84(-86?), rarely seen later, but brood 1994 (CD, in NSB); (Distribution) also at Sackville, e.g. 13 Aug 1983 (m) (D Christie, in NB Nat), summer 1984 (m) (ST, in NB Nat), 12 Jul 1990 (1), 20 May-25 Jul 1991 (2 m) (C Ellingwood, in NB Nat); 6 Jun-7 Jul 1992 (3-2 m), (var obs, in NB Nat); 19 May 1993 (in NB Nat); Dorchester (sew lgn) 19 Oct 1991, Memramcook (sew lgn) 31 Oct 1998 (9) (in NB Nat).

History: (M) 1935-72, Memramcook L, single records Jul-Sep, 18 Oct-16 Nov, max 7; (B) "Irregular transient and summer visitant, rare", 15 May-4 Dec, max 19, at Midgic, Jolicure, Amherst Pt MBS; (E) 24 Oct 1960 (2), 13 Nov 1966 (5), Amherst Pt MBS; (Others) 17 Oct 1957 (9) (C Bartlett, in B); Nov 1969 (25), 22 Oct 1972 (3), 28-29 Oct 1973 (4), 25 Oct-17 Nov 1974, max 30; 16 Nov 1975 (1) (NSBSN), all Amherst Pt MBS.

Strait

Present Status : vagrant, only reports 15 Nov 1975 (10) (CD, in NSBSN); fall 1998 (no details, in NB Nat), both Cape Jourimain NWA [neither really convincing].

Notes: required fertility levels attained only briefly during first years of impmt's 'life', when this (and some other waterbird) species bred in Maritimes, otherwise outside main breeding range.

Changes: no obvious change in status.

Osprey *Pandion haliaetus* [Ospr]

Fundy

Present Status: uncommon summer resident; (E) 10 Apr-12 Sep, max 2; (Atlas, MNRS) in 5 squares, breeding confirmed in 4; nests nr Missiquash R 1982, Ft Lawrence N 1979,82,83,89, LaPlanche msh 1986, Smith Rd 1999, Amherst Pt MBS 1986-91, yg 13-18 Jul; (Distribution) also nr Sackville, Midgic, Jolicure.

History: (M) nr Memramcook in 16 yr 1937-80, arrivals, earliest 17 Apr, mean 23 Apr (8 yr), max 5; latest 23 Sep; (P) arrival 30 Mar 1945 (per J Tingley) [seemed incredibly early, as were several other arrival dates that spring; perhaps month should have been Apr?]; (B) "Rare summer resident", 30 Mar [quoted above?]-21 Aug, nr Cookville, Jolicure, Missiguash; (E) 30 Apr-21 Aug, at Grande Anse, Sackville, Jolicure, Amherst Pt MBS.

Strait

Present Status: uncommon to fairly common summer resident; (E, others) 25 Apr- 19 Oct 1985 (F Lavender, in NSB); max 4; (Atlas, MNRS) in 11 squares, breeding confirmed in 5; nests (MNRS; E) at Cape Jourimain NWA 1982,88,90,93,94,97,99, Bayfield 1987, Upper Cape 1965,74, yg 22 Jul-25 Aug; (Distribution) also at Poucette L, Square L, Duguay Pt, Blacklock Brk, Murray Cor, Anns Acres, Cape Tormentine, Cape Spear, Oulton rd, Monash Pt, Baie Verte, Tidnish R, Northport, Linden.

History: (E) 26 Apr-11 Aug, max 2, also at Cape Jourimain NWA, Timber R, Port Elgin.

Changes: no clear trend; BBS indices, nearby rtes +14.0* (10), Ecozone -6 (35).

Bald Eagle *Haliaeetus leucocephalus* [BaEa]

Fundy

Present Status: only scattered records before 1992; now scarce summer resident, not regularly over-wintering; (E) 13 Mar-26 Dec, max 6; (MNRS) nests nr Pt de Bute 2000, Amherst Pt MBS 1993-95,98-2000, Maccan R 1997-2000, Minudie 1998, yg 20 Jun-31 Jul; (Distribution) also noted nr Grande Anse, Westcock, Sackville, W Amherst; (CBCs) Sackville 7 yr (annual from 1997, max 4), Amherst 18 yr (annual from 1982, max 16, 1998).

History: (M) 11 Oct 1979, Grande Anse; (B) "Occasional visitant", 7 May 1955, Missiguash; (E) 10 Oct 1965, Amherst Pt MBS; (T) "Regular in summer... near Maccan and may nest there", also at Amherst Pt MBS and Westcock 1974-80; (CBCs) Sackville 1969, 1970; Amherst 1969 (all singles).

Strait

Present Status: first noted 1984, scarce summer resident, sometimes over-winters; (E, others) 25 Mar-17 Jan, max 2; unusual numbers 8 Feb 1999 (12), Port Howe (K McKenna, in NSB); (Atlas, MNRS) confirmed breeding nr Northport, Beckwith, Port Philip; nests nr Shinimicas R 1982,83,87, yg 9 Aug (J Taylor); (Distribution) also at Anns Acres, Cape Jourimain NWA, Cape Tormentine, Port Elgin, Baie Verte, Tidnish, Linden; (CBCs) Cape Tormentine 11 yr (annual from 1991, max 7, 1999).

History: (M) 14 Aug 1932, Baie Verte; (E) 26 Apr 1980 (im), Port Philip.

Notes: apparently absent from region before start of period (likely owing to unrestricted shooting earlier), later recovery delayed by widespread DDT spraying (1952-67) against spruce budworm in N.B.; [only noted in winter W of Antigonish until 1970s]; steady increase from mid-1980s.

Northern Harrier (Marsh Hawk) *Circus cyaneus* [NoHa]

Fundy

Present Status: fairly common summer resident, a few linger to CBCs (not known to winter); (E, others) arrival, earliest 2 Apr 1988, mean 18 Apr (10 yr); max 11 (late Nov 1993, K Popma); departure, mean 19 Oct (11 yr), stragglers to 27 Dec (in 1997,1999,2000); (Atlas, MNRS) in nrly all squares, breeding confirmed in 2; 30+ nests found within 300 ha on Tintamarre NWA 1980, when exceptionally common throughout Border marshes (Simmons 1983), population monitored through early 1990s without another notable 'high' (Simmons et al. 1986, MacWhirter 1994); 13 other nests (MNRS) same general area 1965-77, also White Birch rd 1973, Aulac msh 1973,83, Lr Maccan 1980, eggs 17 May-28 Jun, yg 11 Jun-23 Jul (var obs); (Habitats, Distribution) seen widely, mostly in open areas, esp dykelands, wetlands; e.g. Up Dorchester, Westcock, White Birch rd, Cookville, Tintamarre NWA, Aulac, Eddy msh, Maccan, R Hebert; (CBCs) Sackville 11 yr (max 13, 1990), Amherst 15 yr (max 10, 1990).

History: (M) nr Memramcook in 33 yr 1930-79, arrival, earliest 29 Mar 1949, mean 14 Apr (20 yr), max 5; departure, mean 15 Oct (13 yr), latest 1 Nov, stragglers to 5 Dec; nest 1932, eggs 12 May; (P) arrival 2 Apr 1945 (per J Tingley); (B) "Common summer resident and occasional in winter", 29 Mar-9 Nov, stragglers 16 Jan 1949, 22 Jan 1955; (E) arrival, earliest 2 Apr 1967, mean 16 Apr (6 yr), max 3; departure, mean 16 Oct (11 yr), latest 11 Nov; (Others) earliest (or wintered?) 14 Mar 1976 (f), Tantramar msh (R Lamberton et al, in NSBSN); (CBCs) Sackville 1973 (4), 1976 (4); Amherst 6 yr (max 5, 1973).

Strait

Present Status: uncommon summer resident; (E) 12 Apr-12 Nov, max 3; (Atlas) in nrly all squares, confirmed in 6; (Habitats, Distribution) mostly in open habitats, wetlands, shores; e.g. Anderson Sett, Lit Shemogue, Anns Acres, Bayfield, Cape Tormentine, Port Elgin, Linden, Port Howe; (CBCs) Cape Tormentine 4 yr (all singles).

History: (E) 22 Apr-27 Sep, singles (none Jun-Jul); (CBCs) Cape Tormentine 3 yr (all singles).

Notes: no obvious long-term trend, perhaps declined; numbers varied with vole density, exceptionally high 1980; BBS indices, nearby rtes -4.5% (8), Ecozone -1.7% (31).

Sharp-shinned Hawk *Accipiter striatus* [SsHa]

Fundy

Present Status: uncommon to fairly common year-round resident (perhaps part of population migrates?); (E) 2 Feb-20 Dec, all singles; (Atlas) in 8 squares, breeding confirmed E of Amherst; (Distribution) also nr Beaumont, Grande Anse, Minudie, Sackville, Jolicure, Amherst Pt MBS, Maccan; (CBCs) Sackville 14 yr (max 7, 2000); Amherst 15 yr (max 5 (1987, 1994).

History: (M) nr Memramcook and Grande Anse in 24 yr 1931-80, all months, max 2; (B) "Rare summer resident, occasional in winter"; (E) 14 records (all singles), all months except Mar,May,Jul-Aug; (CBCs) Sackville 12 yr (max 2); Amherst 3 yr (singles).

Strait

Present Status: uncommon year-round resident (or partial migrant?); (E) 17 Apr-18 Dec, all singles; (Atlas) in 7 squares, breeding confirmed nr Northport; (Distribution) also nr Murray Bch, Anns Acres, Cape Jourimain NWA, Oulton rd; (CBCs) Cape Tormentine 9 yr (max 4, 1994);

History: (CBCs) Cape Tormentine 6 yr (max 3, 1973).

Changes: no evidence of changed status (likely under-detected throughout).

Cooper's Hawk *Accipiter cooperii* [CoHa]

Present status: probably vagrant; records all seasons except spring; (Others) 8 Oct-5 Nov, 11 Jan-8 Mar, all singles; 19 Jun 1993, Eddy msh (F Lavender, in NSB); Amherst 15 Feb 1981 and Feb 1995? (CD, photos); (CBCs) Amherst 1997, 1999 (singles);

History: (M) at Memramcook Mar 1941, Nov 1952, Jan-Feb 1974; (E) 8 Oct 1960, Amherst Pt MBS; (Others) 25-30 Jun 1980, Nappan-Maccan rd (CD, in NSB).

Notes: most records nr (winter) feeders.

Northern Goshawk *Accipiter gentilis* [Gosh; NoGo]

Fundy

Present Status: scarce year-round resident; also scarce transient?; (E) 3 Jun-19 Nov (5 yr); (Atlas, MNRS) found in only 2 squares; nests nr Frosty Hollow 8 Jun 1987, Breau Crk (upper) 15 Jul 1997, 26 Jun 1999 (E); (Distribution) also nr British Sett, Aulac, Amherst Pt MBS; (CBCs) Sackville 14 yr (max 3); Amherst 8 yr (max 3).

History: (M) nr Memramcook in 15 yr 1935-78, all 2 Nov-22 May, singles (once 2); Grande Anse 2 Sep 1972; (B) "Rare transient and resident", mostly in winter, 29 Oct-7 Apr, Wood Pt, Westcock, Fairfield, plus Beech Hill 28 Jun 1949; (E) 22 Aug-26 Dec, twice noted flying SW in fall; (Distribution) Rockport, Grande Anse, Frosty Hollow, Fairfield; (CBCs) Sackville 10 yr (max 3); at Amherst 2 yr (max 1).

Strait

Present Status: scarce year-round resident; (Others) Mar 1981, Port Howe (ST, in NSB); (Atlas, MNRS) 3 sightings, Cape Jourimain NWA, Northport, Beckwith; nest off Uniacke rd nr Baie Verte 1981 (L Laviolette); (CBCs) Cape Tormentine 9 yr (max 2).

History: (MNRS) nest nr Malden 1967 (W McNutt); (CBCs) Cape Tormentine 8 yr (max 3).

Changes: no obvious status change, but earlier (sparse) data suggested mainly wintering (vs recent nests and summering).

Red-shouldered Hawk *Buteo lineatus* [RsHa]

Present Status: vagrant; (Others) 21 Sep 1985, Memramcook (P Pearce, in NB Nat); 9 Aug 1986, Memramcook (J Wilson, in NB Nat); 5 Mar 2000 (wintered?), Woodside nr Port Elgin (N Belliveau et al, in NB Nat).

History: 19 Jun 1973 (2), Bayfield (D Finch et al, in NB Nat) [seen at same time as 2 BwHa, by 3 knowledgeable observers].

Notes: breeds sparsely in sw N.B. (Atlas), so strays here occasionally are plausible.

Broad-winged Hawk *Buteo platypterus* [BwHa]

Fundy

Present Status: uncommon summer resident; (E) 10 May-29 Aug, singles; (Others) straggler 15 Dec 1982, Sackville (E Smith, in NB Nat); (Atlas, MNRS) found in 7 squares, none confirmed; nests (all years) nr Fenwick, 6 May, 22-24 Jul 1979 (E Lowerison), off Tyndal rd, 17 Jul 1986 (E); Northport, 11 Jul 1992; Linden, 13,20 Jul 1991 (J Taylor); (Distribution) also nr Memramcook, Up Dorchester, Grande Anse, Frosty Hollow, Breau Crk (upper), Aboushagan rd, Maccan.

History: (M) nr Memramcook only 9 records in 5 yr 1949-80, 28 Apr-5 Jun, all singles; (B) "Fairlycommon summer resident. Pairs... during breeding season... at Cookville, Missaguash, WhiteBirch Road, and Beech Hill"; (E) 4 records (all singles), 6 May-14 Aug; (Others) nests (contents not checked) nr Fenwick in summers 1961 and 1964, arrival 25 Apr 1979 (1) (E Lowerison Coates, in NSBSN).

Strait

Present Status: uncommon summer resident; (E) only records Aug 1998, Jul 1999; (Atlas) found in 14 squares, breeding confirmed in 4; (Habitats, Distribution) mainly inland towards Strait side of isthmus, in broad-leafed/mixed woods; at Stillman rd, Anns Acres, Oulton rd (also nests - see above); (CBCs) Cape Tormentine 1996 (1, detailed description, in flight at 30 m, 5 obs) [5 winter records accepted in N.S. (Tufts 1986)].

History: (Others) 19 Jun 1973 (2), Bayfield (D Finch et al, in NB Nat).

Changes: apparent slight increase likely reflects only increasing recognition of a scarce species - as in provincial records.

Red-tailed Hawk *Buteo jamaicensis* [RtHa]

Fundy

Present Status: uncommon year-round resident; (E) seen all months except Apr and Sep, most records May-Aug; (Atlas) found in 11 squares, breeding not confirmed; (Distribution) nr Dorchester, Grande Anse, Sackville, Fairfield, Breau Crk (upper), Aboushagan rd, Highmarsh rd, Jolicure, Aulac, Amherst, Maccan; (CBCs) Sackville 17 yr (max 12, 1987); Amherst 19 yr (max 9, 2x).

History: (M) nr Memramcook in 9 yr 1946-72, all months except May-Jul, most Oct-Nov, max 2; (B) "Very rare summer resident and uncommon transient", max 7 (2 Nov 1947); (E) 8 records Jun-Jul, Sep-Jan; (Others) 7 Jan 1967 (1), Aulac (D Christie, in Nat News); (CBCs) Sackville 7 yr (max 2); Amherst 2 yr (max 3).

Strait

Present Status: uncommon year-round resident; (E) records only Jun-Jul, Nov-Jan; (Atlas) found in 6 squares, breeding not confirmed; (Distribution) nr Poucette L, Murray rd, Cape Jourimain NWA, Bayfield, Malden, Melrose, Cameron Bch; (CBCs) Cape Tormentine 13 yr, max 18 (1983).

History: (CBCs) Cape Tormentine 3 yr (max 3).

Changes: data sparse, only obvious change is more frequent wintering since 1980 (not only on CBCs).

Rough-legged Hawk *Buteo lagopus* [RlHa]

Fundy

Present Status: uncommon/fairly common transient and winter resident, a few linger into summer; (E, others) 18 Oct-6 Apr, max 32 (20 Apr 1991, Minudie; B Maybank et al, in NSB); lingerers 1 May 1999 (10), Minudie (F Lavender), 25 May 1981 (1) (ST), 18 Jul 1981 (CD); 12 Sep 1987 (1) (I McLaren); 3 May 1991 (1) (all in NSB); 28 Jun 1988 (1), 30 May and early Sep 2000 (1) (K Popma et al); (Distribution) nr Memramcook, Dorchester, Grande Anse, Sackville, Highmarsh rd, Jolicure, Aulac, Ft. Lawrence, Chignecto NWA; (CBCs) Sackville 20 yr (max 38, 1983); Amherst 17 yr (max 27, 1986).

History: (M) nr Memramcook in 15 winters 1948-49 to 1978-79, arrivals, earliest 27 Oct, mean 22 Nov (10 yr), max 6 (17 Dec 1967); latest 22 Apr; stragglers 23 May 1950, 2 May 1965, 9 May 1969; (B) "Irregular transient and winter resident, fairly common", max 7, nr Westcock, Midgic, Jolicure, Missiguash msh; (E) 18 Oct-18 Apr, max 12; straggler 12 May 1962; summered (Erskine 1968) 26,27 Jun, 5 Sep 1965; 8,26 May, 22 Jun, 2,3 Jul, 4,18 Sep, 2 Oct 1966; (Others) also in summer 16 Jun 1974 (1), Maccan (CD, in NSBSN); earliest 8 Oct 1974, Tintamarre NWA (P Barkhouse, in NB Nat); (CBCs) Sackville 21 yr (max 52, 1971); Amherst

Strait

Present Status: uncommon winter visitant; (E) 18 Dec-17 Apr, singles; (Distribution) nr Bayfield, Cape Spear, Timber R; (CBCs) Cape Tormentine 14 yr (max 13, 1986).

History: (CBCs) Cape Tormentine 14 yr (max 27, 1971).

Changes: less numerous than formerly, though perhaps still largest concentration of species in Maritimes.

Golden Eagle *Aquila chrysaetos*. [GoEa]

Present Status: vagrant; (Others) 11 Jun 1993 (ad), Amherst Head (J Wolford, in NSB); 16 Aug 1994 (ad), Dorchester Cape (J Olch, in NB Nat).

Notes: [Sporadic reports are on record in all Maritime Provinces, from all months except Aug]; local reports similarly show no logical pattern.

Eurasian Kestrel *Falco tinnunculus* [EuKe]

Present Status: vagrant; (Others) 18 Jan-26 Feb (to mid-Mar?) 1988 (f), nr Aulac, Amherst Pt, (mostly) Minudie (ST, E Mills, many obs, in NSB).

Notes: [one previous record in Canada (in B.C.), and <10 records in U.S.A.]; this was clearly a 'lost' bird.

American Kestrel *Falco sparverius* [AmKe]

Fundy

Present Status: uncommon summer resident; a few linger to CBCs; (E) 13 Apr-3 Oct, max 5; (Atlas, MNRS) in 14 squares, breeding confirmed in 5; 6 nests (all years) with eggs 3-19 Jun, yg 19 Jun- late Jul; (Distribution) in open areas and wood-edges, e.g. Dorchester, Rockport, Aboushagan rd, Highmarsh rd, Centre Vill, Jolicure, Amherst Pt MBS, R Hebert (E); (CBCs) Sackville 1990 (1); Amherst 1988, 1998 (singles).

History: (M) at Memramcook in 26 yr 1932-76, arrivals, earliest 23 Mar, mean 17 Apr (23 yr), max 3; latest 23 Sep, lingered into Nov 1964, 1966; (B) "Common summer resident... about as common as the Marsh Hawk" [!!], 6 Apr-26 Nov, in all types of habitat; (E) 3 Apr-13 Oct, max 3; (Others) stragglers to 7 Jan 1979 (1), Amherst Pt MBS, and to mid-Dec 1980 (1), Amherst (CD, in NSBSN); (Distribution) widely, nr Memramcook, Grande Anse, Sackville, Midgic, Aulac, Amherst Pt MBS, Truemanville; (CBCs) Sackville 1969 (1), Amherst 1979 (1).

Strait

Present Status: uncommon summer resident; (E) 12 Apr-17 Sep, max 2; (Others) winter straggler 14 Feb 1988, Port Elgin (D Christie and Mike Majka, in NB Nat); (Atlas, MNRS) in 12 squares, confirmed in 6; 2 nests, eggs 3-11 Jun, yg 26 Jun-17 Jul (W McNutt, A Smith); (Distribution) widely scattered, e.g. Drisdelle, Anderson Sett, Murray Cor, Upper Cape, Baie Verte, Portage L, Tidnish, Shinimicas, Linden.

History: (E) 11 Apr-9 Oct, max 2; (Others) high count (Fundy and Strait combined), 8 May 1977 (55) (ST and B Mactavish, in NB Nat); Distribution) noted nr Shemogue, Murray rd, Cape Jourimain NWA, Melrose, Port Elgin, Northport, Port Howe.

Changes: substantial decline after 1960s apparent to observers, not obvious in BBS indices, nearby rtes +5.8% (10), Ecozone +0.9% (51).

Merlin *Falco columbarius* [Merl]

Fundy

Present Status: uncommon summer resident, fairly common fall transient, a few winter; possible breeding; (M): spring, 13 May 1991; fall, 10 Jul-6 Oct, all sightings 1 or 2, mostly chasing shorebirds at Grande Anse, also Beaumont; (E): spring, 3 Apr 1985 (1), 28 Apr 1999 (2, vocal), Sackville; fall, 24 Jul-17 Oct, most singles nr shores, some chasing shorebirds, Grande Anse, Rockport, Westcock; also 30 May 2000, RCI rd; 27 Dec 1999, Sackville; (Others) 2 Apr 1988 (1), Amherst (in NSB); 'family' in Sackville Jul-Aug 1999 (P Tapley, A McFarlane); (Atlas) only one sighting ('possible'); (CBCs) Sackville 1985, 2000 (singles); Amherst 5 yr (max 2, 1999).

History: (M) only 3 times 1931-43 (Apr, Oct), but in 19 yr 1947-76 nr Memramcook, all months except 2 Jun-8 Aug; all singles except (3x) 2s; [much higher frequency than suggested by all other sources in Maritimes before Atlas years...] (B) "Very rare summer resident and rare transient", nr Wood Pt 10 Jun-Aug 1948 (pr), a few in open country spring and fall; (E) 3 records (all 1966) in shorebird areas, 8 Jul-17 Sep; 3 in 3 winters, 21 Dec-7 Mar, Rockport, Sackville, Ft Lawrence; (Others) to early Feb 1980, around Amherst feeder (CD, in NSBSN); (CBCs) Amherst 1967, 1971.

Strait

Present Status: uncommon summer resident, a few in fall and winter; (E) 16 May-26 Sep, singles; 21 Nov 1999; defensive pr at Stillman rd, 23-31 Jul 1995; (Others) 28 Feb 1983, Melrose (B Dalzell, in NB Nat); May 1982 (pr, courting), 1-15 May 1983, later fledged 1 yg, nr Tidnish (P Caldwell, in NSB); (Atlas) found in 3 squares, none confirmed; (Distribution) also nr Anns Acres, Cape Jourimain NWA, Bayfield, Port Elgin, Tidnish; (CBCs) Cape Tormentine 1998 (1).

History: (CBCs) Cape Tormentine 1963 (1).

Notes: probable urban breeding in Sackville 1999, 2000, as noted elsewhere in Maritimes.

Changes: increased recently, as elsewhere in N.B. (Squires 1976) where no breeding was confirmed before Atlas period.

Gyrfalcon *Falco rusticolus* [Gyrf]

Fundy

Present Status: scarce winter visitant, all 3 morphs noted; (T, others) Feb-10 Apr 1981, Highmarsh rd (dark, many obs), 25 Nov 1981-13 Apr 1982 (1, dark brown), 19 Apr 1982 (1, pale gray), Ft. Lawrence area (ST, in NSB and NB Nat); (CBCs) Sackville 1983, 1984 (singles); Amherst 1982 (1).

History: (M) nr Memramcook, only twice, 1 Mar 1944 and 13 Mar 1955; (B) and (E) never saw it (here); (T) "Rare visitant"; mid-Nov 1975, Amherst Pt MBS (R Burrows, CD); 24 Mar-late May 1979, and 29 Mar 1980, Eddy msh to John Lusby msh (white, many obs); 1979 CBC.

Strait: only report Cape Tormentine CBC 1992 (1, dark).

Notes: too few records to show trend; long gaps with no records (despite knowledgeable observers in area) suggest wide variation in numbers irrupting southward.

Peregrine Falcon *Falco peregrinus* [PeFa]

Fundy

Present Status: scarce spring and uncommon fall transient; (Others) first recent records 26 May 1981, Wood Pt (ST, in NSB), 18 Aug 1982, Amherst Pt MBS (CD, in NSB); summer 1983, Grande Anse (P Hicklin, in NB Nat); also 20 Jun 2000 (in NSB); (M): fall, 17 Jul-13 Oct, sightings of 1-4 (some 'families'), most chasing shorebirds at Grande Anse - first seen there 5 Oct 1981; straggler 15 Nov 1993 (1), Grande Anse; (E): fall, 20 Aug-7 Oct, most chasing shorebirds at Grande Anse, Westcock, Sackville, Amherst Pt MBS; (CBCs) Sackville 1996 (1).

History: (M) nr Memramcook noted in 9 yr 1944-70, 23 Feb-20 May, 15 Aug-25 Dec, singles except once 2; (B) "Rare transient" 1948-54, 4 Apr-20 May, 4 Oct-30 Nov, noted at Westcock, Morice L, White Birch rd, Midgic, Missaguash, Amherst Pt MBS; (E) none (locally) in 1960s and 1970s; (T) 4+ records, 10 Apr-26 Sep, nr Sackville, Tintamarre NWA, Amherst Pt MBS, Maccan (may breed); (CBCs) Sackville 1980 - late Jan 1981 (T).

Strait

Present Status: scarce transient; (E, others) 27 Apr 1985, Northport; fall 1989, Cape Tormentine (G Pringle, in NB Nat); 29 Sep 1991, Jacksons Pt, Tidnish (J Taylor, in NSB); singles.

History: 26 Sep 1979, Cape Jourimain NWA (ST, in NB Nat).

Notes: [Former Maritimes breeding stocks (none known in our area) disappeared by about 1960, probably owing to effects of DDT and other persistent pesticides, applied regionally or farther south]; Probably all seen recently were from birds re-introduced around upper Bay of Fundy 1981-90, breeding from 1988.

Changes: always scarce, disappeared 1950s-1960s, re-appeared 1980s-present.

Gray Partridge *Perdix perdix* [GrPa]

Fundy

Present Status: introduced year-round resident; extirpated; (Atlas) [none anywhere in N.B., no confirmed breeding (in 1986-90) nearer than Borden, P.E.I., and Economy, N.S.].

History: spread from introductions nr Moncton (or locally?) after 1934 (Squires 1952); (M) nr Memramcook in 7 yr 1949-58, max 15; (B) "Rare resident", coveys up to 16 birds, distributed generally on dykelands; (E, others) W Amherst 26 Dec 1962 (3); disappeared by 1970, last reports nr Nappan winters 1967-71 (no details) and 16 Jun 1974 (1) (CD, in NSBSN); also 23 Feb 1975 (19), Belliveau Vill (W Knapper, in NB Nat).

Strait

Present Status: no reports nor introductions known nearer than Shediac (1960s) and Malagash (1950s).

Changes: introduced early in period, disappeared after cold and snowy winters (1959-63?).

Ring-necked Pheasant *Phasianus colchicus* [RPhe] #

Fundy

Present Status: introduced, locally common year-round resident; (E) seen all months, especially in winter, max 40+; (Atlas, MNRS) in 11 squares, breeding confirmed in 8; 4 nests (all years) eggs 1 Jun-10 Aug (W McNutt, C MacKinnon, R Estabrooks); (Habitats, Distribution) in agricultural areas and adjacent shrubby edges, nr Memramcook, Dorchester, Sackville, Midgic, Jolicure, Aulac, Amherst, Nappan; (CBCs) Sackville all 20 yr (max 230); Amherst 19 yr (max 156, 1999, no other >52).

History: (M) none before 1946 at Memramcook, in 18 yr 1946-71, noted all months except Aug-Sep, mostly winter, max 7; (P) none locally 1938-44 [not yet introduced or spread to area then studied]; (B) "Uncommon resident... well distributed and holding its own"; (E) seen nrly all months, same general areas as present but fewer and less often in 1960s (when snow deeper, hunting still allowed); (T) "Common... increased greatly in recent years"; (CBCs) Sackville 19 yr (max 134, 1980; none >38 until 1977); Amherst 10 yr (max 28).

Strait

Present Status: probably spread from introductions (to south and west?), locally uncommon year-round resident; (E) seen all months except Sep, Feb; less often in winter, max 2; (Atlas) in 9 squares, confirmed in 3; brood nr Baie Verte 5 Jul 1985; (Habitats, Distribution) in agricultural areas and adjacent shrubby edges, nr Upper Cape, Port Elgin, Tidnish R, Lorneville, Amherst Hd, Port Howe, W Leicester; (CBCs) Cape Tormentine 7 yr (max 7).

History: (E) noted Mar, Oct-Dec only (few visits then except CBCs), max 5; (CBCs) Cape

Tormentine 4 yr (max 2).

Notes: general increase (nr Fundy) since mid-1970s correlated with increased winter feeding, less accumulation of snow, and absence of (legal) hunting. ** A dark morph [(or 'species' P. versicolor): iridescence variously described as green, blue, purple, black; no white collar] was released nr Sackville in 1970s (S Hicks, B.Sc. hons thesis, Mt Allison U 1986), increased in 1990s, now seen regularly here.
Changes: local introductions or immigration in 1940s?; major increase 1970s to present; BBS indices, nearby rtes +13.8%* (6), Ecozone +5.8%+ (20).

Spruce Grouse *Falcipennis canadensis* [SpGr]

Fundy
Present Status: formerly scarce year-round resident, not reported recently except on CBCs; (E, others) last non-CBC records, 5 Apr 1987 (f), Athol (F Lavender, in NSB);, 10 Dec 1988 (m), Westcock (E); (Atlas) only 2 sightings ('possible'), nr Westcock and Fenwick; (CBCs) Sackville 6 yr (max 5, 1995).
History: (M) only 5 records nr Memramcook, all in woods to N or E, 1930 (5), 1931, 1948, 1949, 1958, all seasons; (B) no records; (E) only 2 records, N of Midgic 19 Sep 1962 (f and 2 im), nr Cape Maringouin 11 Jul 1965 (feigning f); (CBCs) Sackville 1976 (1).

Strait
Present Status: scarce year-round resident, only 1 report except on CBCs; (Atlas) 1 sighting, nr Northport; (CBCs) Cape Tormentine 7 yr (max 2, 1996).
History: (CBCs) Cape Tormentine 1963, 1966 (singles); (MNRS) nest reported, eggs 22 May 1978, Amherst Pt MBS (R Chiasson) [improbable by habitat, suspect ID error for RuGr?].

Changes: too few records for trend, but probably declined with loss of continuous conifer stands by budworm kill (1974-75) and cutting.

Ruffed Grouse *Bonasa umbellus* [RuGr]

Fundy
Present Status: varying, uncommon to fairly common year-round resident; (E) seen all months except Jan, max 4; (Atlas, MNRS) in 13 squares, breeding confirmed in 9; 8 nests (all years) eggs 10 May-10 Jun, (E Lowerison, W McNutt, C Weeks); (Habitats, Distribution) in woodlands and shrubby swales, e.g. Memramcook E, Frosty Hollow, Fairfield, Breau Crk (upper), Cookville, Jolicure, Ft Lawrence, Amherst Pt MBS, Minudie; (CBCs) Sackville 19 yr (max 16, 1997); Amherst all 20 yr (max 17, 1989,1995).
History: (M) quasi-cyclic 'highs' suggested by Memramcook data - 1931-32 (23 dates, max 8), [no peak nr 1941 - few notes], 1950-51 (15 dates, max 2), [no peak nr 1961 - few notes 1959 and 1961], 1972-73 (23 dates, max 2), 1980-81 (23 dates, max 2); (B) "Fairly common resident" [including 1951 'high'?]; (E) all months except Feb-Mar, no peak noted 1961; (Distribution) Dorchester to Cape Maringouin to Sackville to Breau Crk (upper) to Ft Lawrence to Amherst Pt MBS; (CBCs) Sackville 14 yr (max 10, 1979); Amherst 10 yr (max 9, 1979).

Strait
Present Status: uncommon to fairly common year-round resident; (E) seen in Feb, Apr, Jul- Aug, Oct-Dec; max 3; (Atlas, MNRS) in 14 squares, confirmed in 10; 3 nests, eggs 26 May-late Jun (J Taylor, D Colpitts); (Habitats, Distribution) in woodlands nr Anns Acres, Cape Tormentine, Cape Spear, Melrose, Tidnish, Lorneville, Amherst Shore Prov Park; (CBCs) Cape Tormentine all 20 yr (max 23, 1992,2000).

History: (E) in Jun, Sep-Oct, Dec; (no 'high' nr 1961; not in area 1971); (Distribution) nr Lit Shemogue Hbr, Murray rd, Bayfield, Port Elgin, Baie Verte, Tidnish R; (CBCs) Cape Tormentine 13 yr (max 10, 1977).

Notes: CBC maxima did not show peaks matching 'cycle' suggested from RMcM data.
Changes: no obvious cycle; long-term trend possibly downward.

King Rail *Rallus elegans*, **Clapper Rail** *R. longirostris* [KiRa, ClRa]

Fundy
Present Status: (hypothetical) vagrant, sp uncertain; one (probably KiRa, sent away for ID) fd dead May-June 1999, Eddy msh (A Hanson).
History: a report (noted as unusual) 2 Jul 1975 on Tantramar msh E (?, prob W) of Amherst, of Clapper Rail, noted as "well-described", responded to clapping of hands (in imitation of call) (T and C Hanrahan, of Ottawa, in NSBSN) [ID questionable].

Strait
Present Status: [no records nr Strait].

Notes: [scattered records (incl specimens) of ClRa in all three Maritime Provinces, all at coastal locations, in migration seasons or early winter, vs only two records (N.B. specimen, N.S. sighting) of KiRa, both Sep (1952, 1957)].

Virginia Rail *Rallus limicola* [ViRa]

Fundy
Present Status: uncommon summer resident; (E, others) mostly at Sackville w-f park, 22 May-25 Jul, max 2; ad and 7 yg (25 Jul 1992); (Atlas) in 4 squares, breeding confirmed only at Amherst Pt MBS; noted also at Maccan R.
History: (M) at Memramcook L 7 dates in 4 yr 1953-71, 24 May-29 Jun, all singles; (B) "Common [!?] summer resident", 27 Apr-4 Dec, stragglers after Oct, 2 nests, eggs 19 Jun-19 Jul, broods 3 Jul-7 Aug; (E) 4 Aug 1970 (2 hd), nr Sackville; (T) "Fairly common summer resident... responded well to the creation of... impoundments", in 1976 14 pr and 5-8 others on 62.7 ha at Tintamarre NWA (R Milton, for CWS), also at Missiquash msh, Eddy msh, Amherst Pt MBS; (Others) arrival, mean 5 May (4 yr) (CWS files); (MNRS) nest - eggs 10-17 Jun, Tintamarre NWA (R Milton, per T).

Strait
Present Status: scarce summer resident; (Atlas) only record, breeding confirmed S of Baie Verte (nr Chapman Sett?).

Changes: too few records to suggest trends, always uncommon.

Sora *Porzana carolina* [Sora]

Fundy
Present Status: locally fairly common summer resident; (E, others) arrival, earliest 1 May, mean 12 May (10 yr); max 30 (19 May 1982, Amherst Pt MBS; ST, in NSB); latest hd 5 Sep, seen 17 Oct 1991 (F Lavender, in NSB); (Atlas) in 8 squares, breeding confirmed (broods) at Sackville, Amherst msh, Amherst Pt MBS, R Hebert; 55 nests (MNRS, all years, +B), eggs 5 May-30

Jul (incl 2nd/re-nestings); also noted at White Birch rd, Tintamarre NWA, Eddy msh, Maccan R, mostly in impmts.

History: (M) only 2 records before 1949 [didn't recognize calls earlier?], vs. almost daily Memramcook L 1949-73, 28 Apr-25 Aug, max 3+; stragglers 29 Sep, 22 Oct; (B) "Common summer resident" (locally "very common"), 27 Apr-12 Oct. (straggler?), max 22; (E) 12 May-18 Aug, max 3; (Others) 18-19 Apr 1973 (1,2), 23 Apr 1977 (1) (CD, in NSBSN); 1974-76, max 25 (R Milton, T).

Strait
Present Status: uncommon summer resident; (E) 18 May 1998, Baie Verte pd; (Atlas) in 8 squares, confirmed in 2; [no earlier reports].

Changes: probably declined with wetland drainage after 1950, then increased - and became more easily detected - after DU impmts developed from 1970.

Yellow Rail *Coturnicops noveboracensis* [YeRa]

Fundy
Present Status: uncommon summer resident, possibly breeds; (Others) at 2 locations N of Highmarsh rd 20 May-10 Jun 1981 (ST, in NSB); 12 and 16 Jul 1995, Goose L rd and nr Jolicure (ST and B Chance, in NB Nat); (Atlas) 'possible breeding' (=detected) N of Highmarsh rd 1987, and at Amherst Pt MBS 1986, 1989.
History: (M) no records; (B) "Rare summer resident", most nr Midgic and Jolicure Front L, once each at Amherst Pt MBS and Coles I saltmsh; max 12 (15 Jul 1949, Midgic); (E) suspected calls (ID never positive), nr Midgic 1960, 1963; (T) "Rare summer resident... rediscovered... (27 May 1972, Midgic, D MacDougall, in NB Nat)... almost annually since" [to 1981], S of Midgic, Tintamarre NWA, Missiquash msh; [no records nr Strait].

Changes: noted in region more frequently 1949-65 than later, always scarce; drainage of (formerly) wet fields reduced suitable habitat.

Purple Gallinule *Porphyrula martinica* [PuGa]

Fundy
Present Status: fall vagrant, no recent records.
History: (T) one earlier record, White Birch rd 23 Oct 1973, 1 imm; [several others found W of Shepody Bay, mostly late fall]. [no reports nr Strait].

Notes: ["Casual visitant", 7 N.B. records in 90 years (Squires 1976); "Rare vagrant", 25 records in N.S. to 1984 (Tufts 1986); not (yet) recorded in P.E.I..]

Common Moorhen (Common Gallinule) *Gallinula chloropus* [CoMo]

Fundy
Present Status: scarce summer resident/visitant, not detected every year; (Others, E) 30 Apr 1985 (1; ST, in NSB)-21 Sep 1990 (D and C MacNeill, in NSB); max 2; 30 Oct 1989 (1) Amherst Pt MBS (F Lavender, in NSB); probably only vagrants after 1990; (Atlas, MNRS) in 4 squares, breeding confirmed at Sackville and Amherst Pt MBS, also at White Birch, Eddy msh, and Maccan R impmts; nests (1982-83) eggs 1-25 Jun, Amherst Pt MBS (M Forbes).

History: (M) once, at Memramcook L 30 Jun 1970 (1); (B) no records, nor by (E) until 1981; (T) "Uncommon ... summer resident", early May to late Oct, annually at Amherst Pt MBS from 1972, breeding from 1974, a few sightings at Tintamarre NWA and Missiquash msh; (Others) summer 1975, 10+ ad, 3 broods each 6-8 yg, at Amherst Pt MBS; arrival 4 May 1974 (2), 24 Apr 1977 (1), scarcer 1978 (CD, in NSBSN); [no reports nr Strait].

Changes: probably arrived after development of DU impmts (from 1970), later decreasing - and breeding ceased - as fertility of impounded areas declined.

American Coot *Fulica americana* [AmCo]

Fundy

Present Status: uncommon local summer resident and fall transient; (E) arrival, earliest 7 Apr, mean 25 Apr (7 yr); departure, mean 23 Oct (9 yr); fall flocks at Amherst Pt mid-Sep to mid-Nov, no large flocks locally after 1985; (Others) late max 70 (17 Nov 1984; D Currie, in NSB); latest 8 Dec 1981 (6) (ST, in NSB); (Atlas, MNRS) bred Sackville Waterfowl Park 1990-94, White Birch rd 1990; Eddy msh 1991 (J Taylor, in NSB), and sightings in 3 other squares; 22 nests (1982-83, 1990-91) eggs 20 May-29 Jul, Sackville, Amherst Pt MBS (M Forbes, C Ellingwood).

History: (M) at Memramcook L, in fall only, 11 yr 1931-71, 7 Sep-2 Dec, max 8; (B) summer records from 1955 at Amherst Pt MBS; (E) 16 Jul 1961 (1); fall transients 1965-67, max 4; all Amherst Pt MBS; (T) breeding from 1970s at Amherst Pt MBS; (Others) arrivals 24 Apr 1976, 14 Apr 1979, 10 Apr 1980 Amherst Pt MBS (CWS files; CD, in NSBSN); fall max there 140-150 Oct-Nov 1975-77 (T), 25 Oct 1981 (200) (CD, in NSB); straggler 20 Jan 1972, St Joseph (M, in NB Nat).

Strait

Present Status: fall vagrant; (E) 7 Sep 1981 (2), Bayfield; [no earlier reports].

Changes: increase from 'very rare' (M,B) to uncommon in summer, mostly after DU impmts built at Tintamarre NWA (nest 1971) and Missiquash msh (yg 1969), some decline later.

Northern Lapwing *Vanellus vanellus* [NoLa; Lapw]

Present Status: vagrant; (Others) one record, 1st reported 5 May, ID confirmed 27 May, many sightings, last seen 18 Aug 1991, Pt de Bute area (many obs); [no reports nr Strait].

Notes: [vagrant from Europe to Maritimes in 1897, 1905 (both N.S.), 1927 (many - N.S., N.B.), 1964 (N.S.), 1966 (several, all 3 provinces, Bagg 1967); no reports locally from earlier incursions, 1991 bird apparently a lone stray.]

Black-bellied Plover *Pluvialis squatarola* [BbPl]

Fundy

Present Status: common transient; (M): all Grande Anse, spring (7 yr) 14 May-24 Jun, max 1387 (4 Jun 1983); fall, straggler 7 Jul 1983 (1); earliest 15 Jul, mean 27 Jul (8 yr); max 596 (5 Sep 1982); departure, mean 1 Nov (5 yr), last 8 Nov; (E) spring (3 yr) 17 May-20 Jun, max 13; fall, earliest 31 Jul, mean 5 Aug (4 yr); max 400 (3 Sep 1983); departure, mean 15 Oct (11 yr), last 3 Nov 1991); (Distribution) at Grande Anse (most), Rockport, Westcock, Rampasture, Ft

Beausejour, W Amherst.

History: (M) at Memramcook L 9 yr 1953-68, 10-26 May, max 10; 6 Aug-14 Oct, max 12; at Grande Anse 1972-79, 10 May-8 Jun, max 1000; 12 Jul-15 Nov, max 450; (B) "Uncommon spring transient, fairly common in autumn", 28 May 1950 (100); 7 Sep-18 Nov; (E) 13-24 May, max 40; 19 Jul-9 Nov, max 500+; (Others) summering 10 Jun-6 Jul 1980 (3-20), J Lusby msh (CD, in NSB).

Strait

Present Status: uncommon transient; (E) 30 May 1981 (2); 3 Aug-24 Oct, max 22; (Distribution) at Cadman Pt, Cape Jourimain NWA, Bayfield, Monash Pt, Port Elgin, Tidnish Dock, Linden.

History: (E) 12-29 May, max 14; 9 Aug-12 Nov, max 30; (Others) summer straggler 6 July 1974 (1), Cape Jourimain NWA (ST, in NSB).

Changes: no strong evidence of status change, but much less time devoted to shorebird surveys before 1970s.

American Golden-Plover *Pluvialis dominica* [AmGP]

Fundy

Present Status: spring vagrant, uncommon fall transient; (E, others) spring, 29 May 1993 (10), J Lusby msh (B Maybank and R Foxall); fall, most years, 14 Aug- 28 Oct 1989 (I McLaren, in NSB); max 275 (6 Sep 1982, Amherst; ST, in NSB); (Habitats, Distribution) at Grande Anse (beach), Mid Sackville, W Amherst (most often), John Black rd (Amherst); except first, all on dry fields.

History: (M) at Grande Anse 1978-79, 8 Sep-12 Nov, max 5; (B) late Aug 1950 (25), nr Midgic; (E) 31 Jul-20 Sep, max 55, on dry fields nr Sackville, Amherst; (Others) 22 Aug 1969 (30), 3 Sep 1970 (3), 12 Sep 1970 (50), E Amherst (E Lowerison, in NSBSN); late Aug-11 Sep 1977 (300- 500)[exceptional numbers], 13 Aug-14 Oct 1978 (20-40), 28 Oct 1980 (55), Amherst area (CD,ST, in NSB).

Strait

Present Status: vagrant, only report 23 Aug 1986, Tidnish to Wallace - perhaps outside area (ST, in NSB).

Changes: data too sparse for trend.

Piping Plover *Charadrius melodus* [PiPl]

Fundy

Present Status: [no reports from Fundy, except Waterside, 15 km W of area].

Strait

Present Status: intermittent, scarce local summer resident; (Atlas) in 1987 (during Atlas), one pair nested unsuccessfully at Cadman Pt (R Calkins); [only anecdotal reports earlier].

Notes: above perhaps was alternate site to sporadic territories at Johnsons Pt or Petit-Cap (nrby across bay, reported earlier and later, by A Smith and R Calkins, respectively); [nearest regular breeding is at Bouctouche Dune (60 km NW), and on N shore of P.E.I. (45 km N)].

Semipalmated Plover *Charadrius semipalmatus* [SePl]

Fundy

Present Status: scarce spring and common fall transient; (M): all Grande Anse, spring (5 yr) 15 May-3 Jun, max 31; fall, earliest 15 Jul, mean 21 Jul (13 yr), max 2640 (5 Aug 1991), 1800 (16 Aug 1987), 722 (19 Aug 1983); departure, mean 19 Oct (6 yr), latest 29 Oct; (E) none in spring; fall, earliest 26 Jul, mean 2 Aug (8 yr), max 500 (22 Aug 1985); departure, mean 16 Oct (9 yr), last 27 Oct; (Distribution) at Grande Anse (most), Rockport, Westcock, Sackville, Aulac, Amherst Pt.

History: (M) at Grande Anse 11 yr 1964-79 and Memramcook valley 1931-35; spring 14 May 1933 (10), 11-26 May 1974, max 13; fall, arrival, earliest 10 Jul, mean 23 Jul (7 yr), max 1000 (21 Sep 1976), next 200+; departure, mean 7 Oct (6 yr), latest 5 Nov; (B) "Fairly common fall transient", 15 Jul-5 Oct, max 50; (E) 18 Jul-25 Oct, max 200.

Strait

Present Status: fairly common fall transient; (E, others) arrival, earliest 11 Jul (J Taylor, in NSB), mean 29 Jul (11 yr), max 110+; latest 9 Oct; (Distribution) nr Cadman Cor, Murray Cor, Anns Acres to Cape Jourimain NWA (most), Bayfield, Baie Verte, Tidnish Dock, Amherst Shore Prov Park, Northport.

History: (E) spring, 26 May 1966 (2), Bayfield; fall, 26 Jul-9 Oct, max 40.

Changes: no obvious status change.

Killdeer *Charadrius vociferus* [Kill]

Fundy

Present Status: fairly common summer resident; (M, E) arrival, earliest 20 Mar, mean 7 Apr (9 yr); departure,mean 8 Oct (3 yr); max (Mar-May) 4, (Jun-Oct) 7; (Atlas, MNRS) breeding confirmed in most squares; 10 nests (all years) eggs 10 May-1 Jul (var obs); flightless yg at Pres d'en Haut, Grande Anse, Sackville, Midgic, Jolicure, Aulac, Amherst Pt MBS, Minudie, Truemanville.

History: first arrival in our period, first sightings nr Memramcook 4 Apr 1953, and nr Sackville 16 Oct 1947; (M) nr Memramcook in 20 yr 1953-79, arrival, earliest 13 Mar 1973, mean 30 Mar (10 yr), max 24 (except 50+ Jul 1967); departure, mean 10 Oct (10 yr), latest 9 Nov 1967; (B) only 5 records 1947-48, 14 Apr-16 Oct, max 2; (E) 1 Apr-4 Oct 1961-80, max 20 (1 Sep 1979); (Others) earliest 10 Mar 1976, Sackville (ST, in NB Nat); (MNRS) breeding first confirmed 1965, flightless yg at Sackville 26 Jun (E) [also Springhill (just SE of area) 29 Jun (D Dennis)].

Strait

Present Status: fairly common summer resident; (E) arrival, earliest 1 Apr, mean 17 Apr (4 yr); latest in fall 5 Sep; max 3; (Atlas, MNRS) breeding confirmed in most squares; 4 nests (all years), eggs 10 May-14 Jul, at Cape Jourimain NWA, E Leicester, Northport, Port Howe (var obs); flightless yg also nr Murray Cor.

History: (E) 22 Apr-9 Oct, max 3.

Notes: [first known breeding in N.B. 1945, in N.S. 1954 (brood, 1st nest 1963)].

Changes: arrival from 1947, numbers increased through 1970, stable thereafter; BBS indices, nearby rtes +2.0% (14), Ecozone -4 * (68).

American Avocet *Recurvirostra americana* [AmAv]

Present Status: spring and fall vagrant; (E, others) 23-24 Apr 1994 (1), Linden (R Miller, E, sev obs, incl photo in NSB by K McKenna); [only record nr Strait].

History: (E) singles, 15 Sep-2 Oct 1964, 31 Aug-21 Sep 1965, at Tantramar R, Sackville (E, sev obs); [no other records nr Fundy].

Notes: [species not detected in N.B. between 1881 and 1964; like other large shorebirds, it was likely reduced by unregulated hunting in 19th Century, remnant migration from Canadian prairies to SE U.S. spreading gradually north during recovery period].

Greater Yellowlegs *Tringa melanoleuca* [GrYe]

Fundy

Present Status: fairly common spring and common fall transient, a few linger in summer; (E, others) spring, arrival, earliest 10 Apr 1981 (Nappan R, ST, in NSB), mean 28 Apr (8 yr), max 25+, latest 1 Jun (2 yr); stragglers (4 yr) 9 Jun, 20 Jun 1981; fall arrival, earliest 2 Jul, mean 17 Jul (14 yr), max 120; departure, mean 28 Oct (14 yr), latest 9 Nov; (Distribution) at Grande Anse, Westcock, Rampasture and Sackville (most), Eddy msh, Amherst Pt MBS, Nappan R.

History: (M) nr Memramcook in 31 yr 1931-73; spring, arrival, earliest 14 Apr, mean 29 Apr (20 yr), max 46 (next 15), latest 7 Jun; stragglers 14 Jun 1947, 11 Jun 1967, 13 Jun 1974; fall, arrival, earliest 20 Jul, mean 29 Jul (5 yr), max 20; departure, mean 22 Oct (18 yr), latest 8 Nov; (P) arrivals 10 Apr 1944 and 6 Apr 1945 [latter an early spring] (per J Tingley) seemed very early; (B) "Common transient, more common in autumn", 6 Apr [same as (P) above?]-15 Jun, max 20; 8 Jul-7 Nov, max 50; (E) 17 Apr-22 May, max 7; 15 Jun 1960; fall arrival, earliest 16 Jul, mean 19 Jul (5 yr), max 100, latest 25 Oct; (Others) max spring 15 May 1974 (60), Amherst Pt MBS (in NSBSN).

Strait

Present Status: fairly common spring and common fall transient; (E, others) spring, arrival, earliest 18 Apr, mean 3 May (8 yr), max 5, latest 22 May; straggler 5 Jun 1993 (1), Port Howe (B Maybank, in NSB); fall, arrival, earliest 14 Jul, mean 24 Jul (14 yr); max 125 (28 Sep 1993, Cape Jourimain NWA; R Doiron, in NB Nat); departure, mean 18 Oct (11 yr), latest 12 Nov, straggler 21 Nov 1993; (Distribution) widely along shores Shemogue to Bayfield, Cape St Laurent to Baie Verte, Tidnish to Port Philip.

History: (E) spring 7-28 May, max 21; fall, arrival, earliest 10 Jul, mean 19 Jul (4 yr), max 250+ (Cape Jourimain NWA, 28 Sep 1968), latest 28 Oct.

Changes: no obvious status change, but recurring confusion with LeYe might obscure trends?

Lesser Yellowlegs *Tringa flavipes* [LeYe]

Fundy

Present Status: usually scarce spring and common fall transient; (E, others) spring, earliest 1 May 1981 (J Lusby msh, CD, in NSB); max 60+ [!!] (11 May 1991, Amherst Pt MBS, J and S Cohrs, in NSB); fall, arrivals, earliest 22 Jun 1981 (CD, in NSB), mean 4 Jul (12 yr); max 700+ (6 Aug 1986, Rampasture); departure, mean 29 Sep (16 yr), latest 27 Oct [straggler 24 Nov-9 Dec 1999 (1), Sackville w-f park]; (Distribution) at Grande Anse, Rampasture and Sackville w-f park (most), White Birch rd, Tintamarre NWA, Eddy msh, Amherst Pt MBS, R Hebert.

History: (M) nr Memramcook in only 13 yr 1932-76; spring, 21 May 1932 (2), 24 May, 6 Jun 1973 (1); fall, 17 Jul-4 Oct, max 116 (2 Aug 1976, College Bridge); (P) 21 May 1939, Aulac (per J Tingley); (B) "Common autumn transient, occasional in spring", 21 May-13 Jun, max 4; 2 Jul-10

Oct, max 100; (E) none in spring; fall, 29 Jun-21 Oct, max 300+; (Others) 20 Apr-10 May (max 4), Amherst Pt (CD, in NSBSN).

Strait

Present Status: scarce spring and common fall transient; (E, others) spring, 11 Apr 1981 (2), Cape Jourimain NWA (ST, in NSB); fall, 27 Jun-14 Oct, max 150; (Distribution) widely along shores Shemogue to Cape Jourimain NWA, Upper Cape to Baie Verte, Tidnish to Port Philip.

History: (E) 10 Jul-30 Sep, max 80; (Others) straggler 14 Jun 1973 (1), Cape Jourimain NWA (A McInnis, in NB Nat).

Notes: max 800 (18 Jul 1979, Rampasture; cited by T), was total for all shorebirds, only 300+ this species.

Changes: apparent increase, perhaps partly owing to more effort recently in distinguishing from GrYe?

Solitary Sandpiper *Tringa solitaria* [SoSa]

Fundy

Present Status: scarce fall transient; (M, E, others) 11 Jul-22 Sep; max 25 [!!] (6 Sep 1984, J Lusby impmt; D Currie, in NSB); (Distribution) also nr Beaumont, Sackville, Breau Crk (upper).

History: (M) nr Memramcook in only 3 yr 1949-71, 18 May 1949, 23 Aug-19 Sep, max 3; (B) "Occasional transient... easily overlooked"; several times Aug 1949, White Birch rd; (E) 18 Aug-1 Sep, singles; (T) "Very rare spring... uncommon fall transient", singles twice in May, Jolicure, Amherst Pt MBS; regular late Jul-late Sep, max 3.

Strait

Present Status: scarce transient; (E) 7 Sep 1981 (1), Bayfield; [no other reports].

Changes: data too sparse for trend, no obvious change.

Willet *Catoptrophorus semipalmatus* [Will]

Fundy

Present Status: scarce local summer resident; (E, M) arrival, earliest 3 May, mean 10 May (9 yr); max 10; latest noted (breeding areas) 12 Aug, at Rampasture, John Lusby saltmarshes; staging at Grande Anse 7 Jul-11 Aug.

History: (M) first noted 29 May 1971; (B) none seen in (limited) area; (E) first seen (locally) 13 May 1979; (T) first seen and (apparent) breeding at Fundy 1978 and 1979; arrival 25 May 1980 (1), J Lusby msh (ST, in NSBSN).

Strait

Present Status: fairly common local summer resident; (E, others) 6 May 1995 (ST, in NB Nat) -1 Oct; max 25 (late Jun 1999, Port Elgin; D Gaskin, in NB Nat); (Atlas, MNRS) in most coastal squares, breeding confirmed in 4; 7 nests (all years), eggs 27 May-30 Jun, also flightless yg 30 Jun-12 Aug, at Cape Jourimain NWA, Linden, Port Howe, Port Philip (var obs); (Distribution) also at Johnsons Pt, Cadman Pt, Bayfield, Upper Cape, Port Elgin, Baie Verte, Tidnish, Northport; staging (flocks) at Anns Acres.

History: (E, others) first seen and breeding at Baie Verte 1965 and 1966 (Erskine 1967); 13 May-1 Sep; max 25 (11 Aug 1973, Cape Jourimain NWA, D Finch, in NB Nat); 5 Jul 1972 (6 pr), Cape Jourimain NWA (A McInnis, in NB Nat); stragglers 30 Sep 1978, Tidnish; 12 Oct 1978, Bayfield (ST, in NSBSN).

Notes: [first reported on Northumberland Strait (nr Wallace Bay and Malagash, 20 and 40 km E of our area) 12 May 1960 (Erskine 1967)].

Changes: arrival and settlement during our period, perhaps still increasing (still scarce).

Spotted Sandpiper *Actitis macularia* [SpSa]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 9 May, mean 17 May (12 yr); max 5; last seen (most leave late Jul-late Aug; Erskine 1971), mean 18 Sep (6 yr), latest 16 Oct; (Atlas, MNRS) in 17 squares, breeding confirmed in 6; 6 nests (all years), eggs 27 May-23 Jun, at Grande Anse, Tintamarre NWA, E Amherst, Amherst Pt MBS (var obs); (Distribution) also at Beaumont, Dorchester, Rockport, Sackville, Breau Crk (upper), White Birch rd, Eddy msh, Maccan R, R Hebert.

History: (M) at Memramcook in 26 yr 1930-79, arrivals, earliest 9 May, mean 18 May (15 yr), max 5; last seen, mean 10 Sep (5 yr), latest 18 Sep, straggler 20 Oct 1973; (B) "Fairly common summer resident", 9 May-15 Sep; (E) 15 May-6 Oct, max 4; (Others) straggler 27 Oct 1973, Mid Sackville (ST, in NB Nat); Strait - Present Status: fairly common summer resident; (E) 18 May-22 Aug; max 2; (Atlas) in 10 squares, breeding confirmed in 4; (Distribution) nr Square L, Cadman Cor, Murray Cor, Cape Jourimain NWA, Cape Tormentine, Oulton rd, Port Elgin, Amherst Shore Prov Park.

History: (E) 26 May-7 Sep, max 3.

Strait

Present Status : [no reports nr Strait].

Changes: perhaps some decline, noted fewer locations recently; BBS indices, nearby rtes +2.0% (10), Ecozone +0.5% (62).

Upland Sandpiper *Bartramia longicauda* [UpSa]

Fundy

Present Status: intermittent scarce summer resident and visitant; (E, others) 11 May-late Jul; max 2; (Atlas) found in 2 squares, breeding confirmed (brood) Up Sackville 3 Jul 1990 (C Ellingwood), probable (repeated sightings) Amherst Pt; several reports like the latter in area outside Atlas period, e.g. Dorchester 3-9 Jul 1983 (M); Sackville 1981 (T); (Others) exceptional fall dates, 31 Oct 1982 (1), J Lusby msh (P MacLeod, in NSB); 12 Sep 1987 (1), Amherst sod farm (I McLaren, in NSB).

History: (E) by Highmarsh rd 13 Aug 1965 (E, in B Addendum); (T) several reports at Tintamarre NWA and Ft Lawrence 1973, W Amherst 2 Sep 1978, Jolicure and Up Nappan 1980.

Strait

Present Status : [no reports nr Strait].

Notes: [long known as vagrant or transient in N.B. and N.S., seen annually since late 1950s, first proven breeding in Maritimes 1971 nr Salisbury (40 km NW of area), also nr Summerside P.E.I. 1975].

Changes: all reports here since 1964, so visitation probably increased (still scarce).

Whimbrel *Numenius phaeopus* [Whim]

Fundy

Present Status: irregular uncommon fall transient; no reports since 1983; (E) 16 Jul-8 Sep, max 120+ (25 Aug 1982, Ft Beausejour); (Distribution) also at Grande Anse, Aulac.

History: (M) in Memramcook valley only once, 21 Sep 1968 (5), at Grande Anse once each 1972 and 1978, max 20; (P) 7 Sep 1941 (40), Midgic (per J Tingley); (B) "Uncommon fall transient", mid-Aug to 22 Sep, max 27; (E) in 6 yr, 31 Jul-18 Sep, max 16, mostly Grande Anse; (Others) 25 Sep 1976 (5; incl 3 of European form - may be a separate species), Tantramar msh; 8 Aug 1977 (72), Amherst area (CD, in NSBSN and NB Nat); 22-23 Aug 1977 (54), nr Sackville (P Hicklin, in NSBSN).

Strait

Present Status: [no recent reports];

History: (Others) 18 May 1973 (1), Bayfield (D Christie and M Majka, in NB Nat); [only spring report].

Notes: apparently fall passage through local region ended in 1980s; more seen in 1982 than any preceding year, not reported since 1983; data elsewhere in Maritimes too sparse to guess if those birds shifted to alternate staging areas; nearest location with multiple reports earlier (Fox Harbour, N.S., 25 km E of region) had no surveys 1970s-1990s.

Hudsonian Godwit *Limosa haemastica* [HuGo]

Fundy

Present Status: vagrant in spring, uncommon/fairly common fall transient; (M) 24 May and 3 Jun 1994 (1), Grande Anse; (E, others) arrival, earliest 1 July, mean 17 July (6 yr), max 58; latest 10 Sep, stragglers 30 Oct 1988 (E), 28 Oct 1989 (2) (I McLaren, in NSB); (Distribution) at Grande Anse (mostly), Rampasture, Sackville w-f park, Chignecto NWA.

History: (M) nr Memramcook only once (7 Oct 1964, 2); in 4 yr 1973-79 at Grande Anse, 19 Jul-6 Sep, max 18; (B) "Occasional transient, rare", Amherst Pt MBS, mid-Aug 1950 (4) (E Addy); (E) 24 Oct 1964 (4); 29 Jul-4 Sep (1977-80), max 80; (T) 1969-80, 12 Jul-12 Nov, max 70 (25 Jul 1980), nr Sackville & John Lusby msh.

Strait

Present Status: uncommon fall transient; (E) arrival, earliest 14 July, mean 30 July (9 yr), max 10; latest 7 Sep; (Distribution, in our area) only noted between Anns Acres and Cape Jourimain NWA.

History: (E, others) 16 Aug 1972 (78, max) (D Finch and A McInnis, in NB Nat) -7 Sep.

Notes: [species decimated overall by market hunting before 1920, recovery noted from 1950s - when found at Hudson Bay, and in N.S. (Glace Bay, Fox Harbour)].

Changes: increased here 1960-1980, perhaps stable later.

Marbled Godwit *Limosa fedoa* [MaGo]

Strait

Present Status: fall vagrant; (E) 26 Sep 1987 (1), Port Howe; (Others) Cape Jourimain NWA, 1 Aug 1991 (ST, in NB Nat); fall 1992 (P MacLeod, in NSB); singles.

Notes: [occasional records known in N.B. and N.S., since 1969 and 1954, respectively, mainly late summer/fall].

Ruddy Turnstone *Arenaria interpres* [RuTu]

Fundy

Present Status: a few stragglers spring and summer; uncommon fall transient; (M) 5 Jun 1983 (2); earliest 23 Jul, mean 1 Aug (6 yr), max 13; departure, mean 19 Sep, latest 30 Sep, straggler 19-25 Oct 1991; (E) arrival, earliest 23 Jul, mean 2 Aug (7 yr), max 13; departure, mean 17 Sep (10 yr), latest 5 Oct, straggler 19-27 Oct 1991; (Others) 22 & 27 Jun 1981 (1-3) J Lusby msh (CD, in NSB); (Distribution) at Grande Anse (most), Sackville (once).

History: (M) 1972-79, arrival, earliest 21 Jul, mean 30 Jul (6 yr), max 7, departure, mean 15 Sep (4 yr), latest 21 Sep; (B) not seen in his (restricted) area; (E) 28 Jul-16 Sep, max 4; (Distribution) at Grande Anse (most), Cape Maringouin, Sackville, Aulac.

Strait

Present Status: uncommon fall transient; (E) 25 Jul-9 Sep, max 17; (Distribution) at Cadman Pt, Anns Acres, Cape Jourimain NWA, Timber R, Baie Verte, Tidnish, Amherst Shore Prov Park.

History: (E) 26 Jul-28 Sep, max 7.

Changes: no obvious status change.

Red Knot *Calidris canutus* [ReKn]

Fundy

Present Status: scarce spring transient, irregularly uncommon to common fall transient; (M) spring, 22 May-13 Jun 1983, max 39, Grande Anse; (M, E) fall, arrival, earliest 15 Jul, mean 26 Jul (6 yr), max 800 (6 Aug 1983), 750 (22 Aug 1992); departure, mean 11 Oct (8 yr), latest 30 Oct; (Others) [exceptional! (species errors in publication?), 21 Apr 1984, Amherst Pt MBS (F Lavender, in NSB); 11 May 1991 (35), J Lusby msh (J and S Cohrs, in NSB)]; (Distribution) most fall sightings at Grande Anse, except 16-25 Jul 1981, J Lusby msh (ST, E Mills, in NSB).

History: (M) in 7 yr 1972-79, arrival, earliest 19 Jul, mean 1 Aug (4 yr), max 431, latest 21 Oct, stragglers 20 Nov 1976 (2), 10-17 Nov 1978 (1-2); (B) none, in his restricted area; (E) 27 Jul-14 Sep, max 40; (T) at Chignecto NWA in July 1978-80, max 53; (Distribution) at Grande Anse unless noted otherwise.

Strait

Present Status: straggler in summer, irregularly uncommon fall transient; (E) 3 Aug-7 Sep, max 3; (Others) 16 Jun 1999 (2), Johnson Pt, nr Shemogue (M LeBlanc, in NB Nat); lingering 24 Dec 1982, Cape Tormentine (ST, in NB Nat); (Distribution) all other sightings at Anns Acres/Cape Jourimain NWA.

History: (E) at Cape Jourimain NWA & Tidnish 17-29 Aug, max 6; (Others) stragglers 18 Nov 1973 (5), Cape Jourimain NWA (CNC, in NB Nat).

Notes: noted almost daily at Grande Anse, often in large numbers, by McManus vs. few birds 1-3x/fall by Erskine (who made fewer visits and spent much less time using telescope); perhaps these birds usually stay far out on flats, and move elsewhere during high water?

Changes: data too few to show trends.

Sanderling *Calidris alba* [Sand]

Fundy

Present Status: vagrant in spring, fairly common fall transient; (M) spring, 11 Jun 1982 (1); fall, arrival, earliest 18 Jul, mean 24 Jul (6 yr); max 600 (16 Oct 1993); departure, mean 23 Oct (6 yr), last 16 Nov 1993; (E) earliest 5 Aug; max 165 (25 Sep 1993); departure, mean 9 Oct (7 yr), last 15 Oct; (Distribution) all at Grande Anse.

History: (M) 1976-79, 19 Jul-23 Nov, max 100; (B) none, in his (restricted) area; (E) 31 Aug-30 Oct, max 150+, most Grande Anse, few Sackville.

Strait

Present Status: uncommon fall transient; (E) 29 Jul-21 Nov, max 20; (Distribution) at Cadman Pt, Murray Bch, Spence, Anns Acres, Cape Jourimain NWA, Cape Tormentine, Baie Verte, Northport, Heather Bch.

History: (E) 26 Jul-19 Nov, max 28.

Changes: no evidence of status change, but suitable habitat little studied before late 1970s.

Semipalmated Sandpiper *Calidris pusilla* [SeSa]

Fundy

Present Status: irregularly fairly common spring, and abundant fall transient; (M) spring (7 yr), 15 May-16 Jun, max 7500 (6 Jun 1983); stragglers through summer 1983; fall, earliest (exc <100) 10 Jul, mean 16 Jul (11 yr); max 655,000* (10 Aug 1991); departure (most gone by early Sep), mean 6 Oct (9 yr), latest 23 Oct 1981; all at Grande Anse; (E) only spring record 25 May 1981 (3), Rampasture; fall, arrival, earliest 14 Jul 1993, mean 23 Jul (14 yr); max 120,000 (10 Aug 1989); departure, mean 6 Oct (5 yr), latest 15 Oct 2000; at Grande Anse (all large counts), Cape Maringouin, Rockport, Westcock, Rampasture, Sackville, Amherst Pt MBS.

History: (M) nr Memramcook 1931-67, spring 14 May 1933 (3), fall (8 yr) 16 Jul-22 Oct, max 500+; at Grande Anse 1968-79, spring 11 May-8 Jun 1974, max 3000 (2x); fall, arrival, earliest 12 Jul, mean 19 Jul (5 yr), max 158,000* (9 Aug 1979), departure, mean 13 Oct (6 yr), latest 21 Oct; (B) "Common fall transient", 1 Jul-9 Oct, mixed flocks with LeSa; (E) arrival, earliest 30 Jun, mean 9 Jul (3 yr); max 60,000 (27 Jul 1980); departure, mean 9 Oct (8 yr), latest 25 Oct, straggler (injured) 11 Nov; (T) "spectacular numbers [to 50,000]... roosting in John Lusby marsh impoundments... when water levels... low... late July-early August 1977 and 1978"; (Others) latest date 12 Nov 1973 (50), Tantramar R (in NSBSN).

Strait

Present Status: regular fall transient, uncommon relative to Fundy numbers; (E) 14 Jul-9 Sep, max 175+ (24 Aug 1985); (Distribution) nr Cadman Cor, Murray Cor, Anns Acres/Cape Jourimain NWA (most), Bayfield, Amherst Shore Prov Park, Northport, Linden, Port Howe.

History: (E) arrival 9 Aug; max 300 (28 Sep 1968); departure, mean 29 Sep (6 yr), latest 15 Oct.

Changes: apparent increase 1970s to 1990s; decline after 1995 has been suggested, but no data available 1996-98; no systematic estimates before 1970s [except 17 Aug 1966, 30,000 (E)].

Note: many earlier estimates by McManus were recalculated, using the same (larger) 'density factors' in extrapolation as were used in 1990s; earlier estimates had assumed much lower densities. Even with this upward adjustment of earlier counts, increase in later years remained apparent...

Western Sandpiper *Calidris mauri* [WeSa]

Fundy

Present Status: fall vagrant; (Others) 14 Jul 1983 (1), 14 Aug 1984, both Grande Anse (ST, in NB Nat).

History: (M) at Grande Anse, 13 Oct 1968 (2), 6 Aug 1973 (2), 14 Sep 1976 (2); (B) and (E) did not identify species; (T) 16 Jul 1980, John Lusby imp'm't (1).

Strait
Present Status: [no reports at Strait].

Notes: first identified in Maritimes 1960s (not easily distinguished from SeSa); early data and identity problems summarized by Ouellet et al. (1973).

Least Sandpiper *Calidris minutilla* [LeSa]

Fundy
Present Status: fairly common spring and common fall transient; (M) spring, earliest 16 May, mean 22 May (6 yr); max 200 (3 Jun 1982); latest 3 Jun; fall, earliest 1 Jul 1983, mean 15 Jul (7 yr); max 473 (6 Sep 1982); departure, mean 27 Sep (5 yr), latest 12 Oct 1981; all at Grande Anse; (E) spring, earliest 7 May 2000, mean 18 May (10 yr); max 20; latest 25 May; fall, earliest 5 July 1999, mean 13 Jul (13 yr); max 200+ (16 Jul 1981); (Distribution) at Grande Anse, Westcock, Rampasture, Sackville, Hog L, John Lusby, Amherst Pt MBS, R Hebert.
History: (M) nr Memramcook in 21 yr 1931-73, and Grande Anse annually 1973-79, spring arrival, earliest 9 May, mean 14 May (8 yr); max 200 (1933; next 50, 1973); latest 31 May; fall arrival, earliest 11 Jul, mean 19 Jul (10 yr); max 1500 (1932, [incl many SeSa?], next 150 1979); departure, mean 1 Oct (9 yr), latest 22 Oct; (B) "Fairly common spring and very common autumn transient", max (spring) 30, (fall) 1500 [mixed LeSa and SeSa - mostly latter?]; (E) 13 May 1979 (1), 6 Jul-21 Sep; max 1000 (12 Jul 1979).

Strait
Present Status: scarce spring and fairly common fall transient; (E) spring 22 May 1983 (30), 11 May 1993; fall 16 Jul-7 Sep, max 25+; (Distribution) at Cadman Cor, Anns Acres/Cape Jourimain NWA (most), Bayfield, Cape Tormentine, Cape St Laurent, Northport, Port Howe.
History: (E) spring, 18-26 May, max 23 (26 May 1966); fall, 10 Jul-28 Sep, max 20; (Others) high spring count, late May 1974 (450), Cape Jourimain NWA (ST, in NB Nat).

Note: Many counts in fall were minimal; this species is often under-estimated among much larger numbers of SeSa.
Changes: no evidence of changed status.

White-rumped Sandpiper *Calidris fuscicollis* [WrSa]

Fundy
Present Status: irregularly common fall transient; (M): earliest 27 Jul, mean 6 Aug (5 yr); max 160 (16 Oct 1993), 158 (12 Oct 1981); departure, mean 20 Oct (4 yr), last 26 Oct; all at Grande Anse; (E): earliest 4 Aug 1981; max 400+ (5 Oct 1986); no counts >25 before 10 Sep, all counts >100 in Oct; departure, mean 14 Oct (5 yr), latest 30 Oct 1988; (Distribution) at Grande Anse (most), Rampasture, Sackville w-f park.
History: (M) in Memramcook valley 1954-65, and Grande Anse 1973-79, arrival, earliest 1 Aug, mean 9 Aug (5 yr); max 345, none >53 before 10 Sep; departure, mean 26 Oct (5 yr), latest 13 Nov; (B) "Occasional transient, very rare", nr Midgic Jul-Aug 1949; (E) 10 Aug-9 Nov, max 750 (31 Oct 1977), prob 1500 (13 Oct 1962), nrly all at Grande Anse; (T) at Amherst Pt MBS 1974-79, 31 Oct-4 Nov, max 25; (Distribution) at Grande Anse (most), Rockport, Westcock, Sackville.

Strait

Present Status: uncommon fall transient; (E) 2 Aug-23 Oct, max 7; (Distribution) at Spence, Anns Acres/Cape Jourimain NWA (most), Bayfield, Port Elgin, Tidnish, Port Howe.

History: (E, others) 17 Aug-19 Nov; max 300 [17 Aug 1972, date unusual for so many], Cape Jourimain NWA, D Finch and A McInnis).

Notes: Most August counts at Fundy are minimal, under-represented among much larger numbers of SeSa.

Changes: data too sparse for detecting trends.

Baird's Sandpiper *Calidris bairdii* [BaSa]

Fundy

Present Status: fall vagrant; (M) 27 Sep 1981 (1), 30 Aug and 4 Sep 1982 (1), 9 Sep 1983 (1), all Grande Anse; (Others) 16-17 Jul 1984 (1), Grande Anse (ST, in NB Nat); early Sep 1992, Sackville sewage lgn (several, in NB Nat); 6-13 Sep 1999 (1), Taylor Vill impmt (A Clavette and R LeBlanc, in NB Nat).

History: (M) one reported at Memramcook L 1 Aug 1935 (Squires 1952, 1976) [notebook details (by M) unconvincing to (E)]; Strait - Present Status: fall vagrant; (Others) 30 Sep 1993 (2), Cape Tormentine (C Adam, in NB Nat); 21 Oct 1998 (1), Bayfield (J Tanner and F Dubé, in NB Nat); [no earlier reports].

Notes: [noted as scarce fall transient in N.B. and N.S. since mid-1960s, a few perhaps present but undetected earlier]; local reports match dates and numbers elsewhere in Maritimes (no specimens here).

Pectoral Sandpiper *Calidris melanotos* [PeSa]

Fundy

Present Status: spring vagrant; uncommon/fairly common fall transient; (E, others) arrival, unusually early 24 Jul 1998, 29 Jul 1999; earliest 29 Aug, mean 8 Sep (10 yr); max 160 (25 Oct, 1985, Tantramar R dam; ST, in NB Nat); latest 1 Nov; (Distribution) at Memramcook, Grande Anse, Sackville (w-f park - most), Amherst Pt MBS.

History: (M) nr Memramcook in 13 yr 1932-71, 15 Aug-3 Nov, max 30; (B) "Fairly common autumn transient", 28 Jul-15 Nov, max 25, nr White Birch rd, Midgic, Coles I; (E) 1 Aug-21 Oct, max 15; (Others) 25 Jul 1976 (1), 5 Jul (10) and 25 Jul 1980 (1), J Lusby msh; 20-23 May 1978 (1); high counts 13 Oct 1976 (45), Pt de Bute (ST, in NB Nat), 28 Sep (80+), 11 Oct 1978 (60), Amherst Pt MBS (CD, ST, in NSB).

Strait

Present Status: spring vagrant; no recent fall reports (but some probably occur); (Others) 11 Apr 1981 (9), Cape Jourimain NWA (ST, in NSB) [unusual in spring, but 900+ noted in Maine then (NSB)].

History: (E) 17 Aug-28 Sep, max 8, at Cape Jourimain NWA, Bayfield; (Others) spring, 23 Apr 1977 (1), Cape Jourimain NWA (ST, in NSBSN and NB Nat).

Changes: fewer records in 1980s than earlier or later (perhaps artifact of observation patterns?); data too scarce for trends.

Purple Sandpiper *Calidris maritima* [PuSa]

Fundy

Present Status: scarce spring and uncommon late fall transient; (M, others) spring, 6 May 1985 (4), 12 May 1992 (15); fall, 11 Nov-14 Dec, max 37, most nr Grande Anse (K Popma, in NB Nat).

History: (M) in spring only 1974, 12 May (25), Joggins; 19 May (2), Grande Anse; (B) and (E) saw none locally; (Others) [report at Amherst Pt MBS 16 Aug 1978 (2) (CD, per T) seems improbable both on location and date].

Strait

Present Status: scarce late fall transient; (E, others) mid-Nov to mid-Dec (incl CBCs), at Cape Jourimain NWA, Cape Tormentine; max 4 (K. Popma); (CBCs) Cape Tormentine 1996, 1997, max 7.

History: (Others) at Cape Tormentine 28 Nov 1967 (1); 28 Dec 1966 (4, only CBC report) (R Fyfe and E); 18 Nov 1973 (1), Cape Tormentine (CNC, in NB Nat).

Changes: too few data to detect trends.

Dunlin *Calidris alpina* [Dunl]

Fundy:

Present Status - irregularly common fall transient; (E, M) - (straggler 8 Aug 1981) 29 Aug-14 Nov, max 2000+, no cnts >21 before 20 Sep; (Distribution) at Grande Anse (most), Sackville w-f park, J Lusby msh.

History - (M, and in Nat News) - spring, 16 May 1974 (1); fall, in 7 yr 1965-79; arrival, earliest 7 Sep, mean 9 Sep (3 yr), max 1300 (14 Nov 1976), no cnts >40 before 30 Sep; departure, mean 28 Oct (5 yr), latest 20 Nov; (B) - "Fairly common autumn transient", 18 Nov-10 Dec, max 30, Westcock; (E) - 12 Sep-5 Nov; max 2000+ (30 Oct 1977); (Others - all ST) - (straggler 5 Jul 1980 (1, br pl; Chignecto NWA); max early Nov 1978-79 (max 430; Chignecto NWA), 11 Nov 1979 (1800), Rockport (in T, NSB, NB Nat).

Strait:

Present Status - uncommon fall transient; (E) 18 Oct-10 Nov, max 45; most Anns Acres-Cape Jourimain NWA; also Port Elgin.

History - (Others) - spring only 23 Apr 1977 (1; v early); fall (E, others) stragglers 5 Jul and 17 Aug 1972 (D Christie, A McInnis, in NB Nat), 17 Aug 1978 (E); 28 Sep-12 Nov; max, 6 Oct 1974 (200+), 5 Nov 1978 (250+), Cape Jourimain NWA (ST, in NB Nat).

Changes: no suggestion of changed status, but few surveys after 25 Sep (when peak nos expected), except at Grande Anse.

Curlew Sandpiper *Calidris ferruginea* [CuSa]

Fundy

Present Status: vagrant; (Others) 25 May 1981 (1), Allen Crk (ST, in NSB); 12 Sep 1993 (1), Grande Anse (M, in NB Nat).

Notes: First is only spring record in Maritimes, where 20 fall records known in N.B. and N.S. through 1975 and 1985, respectively.

Stilt Sandpiper *Calidris himantopus* [StSa]

Fundy

Present Status: scarce fall transient; (E, others) 2 Aug 1993 (4) (ST, in NB Nat); 12 Aug 1995 (3 ad), Pt de Bute impmt (Missiquash R?) (W Petersen, in NB Nat); 24 Jul 1998 (1), Sackville w-f park (E); 14-24 Sep 1998 (16->1), DU impmt nr Dorchester (A Clavette et al, in NB Nat); 9 Sep 1999 (4), Taylor Vill impmt (A Clavette, in NB Nat).

History: (M) and (B) never identified species; [(E) only twice in Maritimes before 1998 (1954, 1961, in N.S.)]; (T) "Rare to uncommon fall transient", annually 1975-80, 16 Jul to 19 Sep, max 8, straggler 28 Oct-1 Nov 1979, most at Chignecto NWA.

Strait

Present Status: scarce fall transient; (Others) 28 Jul (1) and 1 Aug 1991 (3), Cape Jourimain NWA; 4 Aug 1992 (3) (ST, in NB Nat).

History: (Others) 16-17 Aug 1972 (1), 11-18 Aug 1973 (3-6), Cape Jourimain NWA (D Finch et al, in NB Nat); 30 Jun 1974 (1), Cape Jourimain NWA (in NB Nat).

Notes: ["Very rare" (N.B.), "Uncommon" (N.S.), "Occasional" (P.E.I.)]; local status agrees with wider pattern.

Buff-breasted Sandpiper *Tryngites subruficollis* [BbSa]

Fundy

Present Status: fall vagrant; (Others) 19 Sep 1978 (1) J Lusby impmt - drained (CD, A Clarke) (T); 30 Aug 1982 (ST), 12 Sep 1987 (1) (I McLaren) Amherst sod farm (both in NSB).

Strait

Present Status: fall vagrant, only record 26 Aug 1989, Cape Jourimain NWA (B Dalzell and B Maybank, in NB Nat).

Notes: probably under-detected, as suitable habitat seldom visited (as with AmGP).

Ruff/Reeve *Philomachus pugnax* [Ruff]

Fundy

Present Status: summer vagrant; (Others) 12 Aug 1995 (1 moulting m), Pt de Bute impmt (W Petersen, in NB Nat); 7-21 Jul 1998, Sackville w-f park (believed non-br m; many obs).

History: (M) and (B) did not note species; (Others) 30 Jun-2 Jul 1975, 4-13 Jul 1980, J Lusby imp'm't; 2 Aug 1980, Amherst Pt MBS (ST,CD, in NSB).

Strait

Present Status: vagrant; [no recent records].

History: (Others) at Cape Jourimain NWA 1-20 Jul 1972 (male, once with 2nd male, once with female); 14 Jun 1973 (male) (A McInnis, and Squires 1976), 30 Jun 1974 (1) (in NB Nat); 3 May 1976 (1), Cape Jourimain NWA (CD, in NSBSN and NB Nat).

Notes: [a few early specimens, otherwise scarce visitant in N.B. and N.S. since 1972 and 1959, respectively]; data too sparse to show pattern.

Short-billed Dowitcher *Limnodromus griseus* [SbDo]

Fundy

Present Status: stragglers in spring; common fall transient, annually; (M): spring, 21 May-12 Jun, only 1983, max 4; fall, earliest 3 Jul 1983, mean 17 Jul (5 yr); max 1000 (19 Jul 1987); departure, mean 13 Sep (6 yr), latest 27 Sep 2000; all Grande Anse; (E): none in spring; fall, earliest 30 Jun, mean 5 Jul (9 yr); max 70 (22 Jul 1984); departure, mean 9 Sep (12 yr), latest 29 Sep; (Distribution) at Grande Anse, Rampasture, Sackville w-f park, Eddy msh, John Lusby, Amherst Pt MBS.

History: (M) nr Memramcook 1932-54, spring 19 May 1969; fall 20 Jul-15 Aug; at Grande Anse 1973-79, 2 June 1974 (1), 18 Jul-13 Sep, max 640; (B) "Fairly common autumn migrant, occasionally common", 7 Jul-5 Oct, max 100, at Midgic, Amherst Pt MBS; (E) 29 Jun-10 Oct, max 200+; at Grande Anse, Rampasture, Sackville, Amherst Pt MBS; (T) max 30 Jul 1975 (400), 26 Jul 1978 (500), John Lusby msh.

Strait

Present Status: fairly common fall transient; (E) most years, 27 Jun-28 Sep; max 75+; (Distribution) at Anns Acres-Cape Jourimain NWA, Bayfield, Cape St Laurent, Baie Verte, Northport.

History: (E) spring 13 May 1963 (5); fall 10 Jul-30 Sep, max 100, at Cape Jourimain NWA, Bayfield, Upper Cape, Baie Verte, Northport, Port Howe; (Others) high counts 16-17 Aug 1972 (250), Cape Jourimain NWA (D Finch and A McInnis, in NB Nat); latest 14 Oct 1972 (1), Cape Jourimain NWA (ST, in NB Nat).

Changes: no obvious change in status, but suitable areas seldom surveyed before 1970s. [after mid-Sep, some at Sackville w-f park, not positively identified (and not included above), might be LbDo (see below)].

Long-billed Dowitcher *Limnodromus scolopaceus* [LbDo]

Fundy

Present Status: vagrant in spring; scarce fall transient; (Others) 13 Oct 1985 (4), Amherst Pt MBS; 25-27 Oct 1985 (13), Tantramar R dam (ST, in NSB and NB Nat); 7 Oct ff 1989 (5), 23 Sep-31 Oct 1990 (max 14), 16 Aug 1991 (1), 20 Sep ff 1991 (2), 15 Oct 1992 (8), 13-29 Aug 1993 (1-5), 10 Aug-2 Oct 1994 (1-5), early Aug and ca.1 Nov 1995 (1-2), Sackville w-f pk (var obs, in NB Nat); 12 Aug 1995 (3 ad), Pt de Bute impmt (W Petersen, in NB Nat); 12 May 1992 (2) (ST, in NB Nat); 17 Sep 1998 (1), DU impmt nr Dorchester (B Dalzell, in NB Nat); 2nd wk Sep 1999 (1), Taylor Vill impmt (A Clavette, in NB Nat); [summary, spring 12 May 1992 (2); fall arrival, earliest 10 Aug, mean 13 Aug (4 yr); max 14 (fall 1990); departure, mean 21 Oct (5 yr), latest 1 Nov 1995;].

History: (T) local records 1975-79, 29 Aug-11 Nov [except 1-2 Jul 1977 (4, CD)], max 7, studied and photographed; all at Chignecto NWA; [also (E): at Sackville w-f park, several sightings of dowitcher (sp?) noted as "large, pale gray", some with notably long bills - distinctive from SbDo as seen in Jul and Aug; none positively identified, but some suspected to be this species: annually 1991-2000, 1-7 dates/yr, 1 Oct-6 Nov, max 10 (7 Oct 1992); P Hicklin, who saw such birds too, also remained uncertain on their identity].

Strait

Present Status: scarce fall transient; (Others) 14 Oct 1990 (2), Baie Verte (in NB Nat).

History: (Others) 16-17 Aug 1972 (Squires 1976 - obs not given, prob Finch and Mcinnis); 14 Oct 1972 (3) (D Finch, ST, in NB Nat); 15 Nov 1975 (1) (CD, in NSBSN), all Cape Jourimain NWA.

Notes: [considered rare in N.B. and N.S., reports (incl a few specimens) increased from 1968 in both provinces, reflecting increased expertise/confidence of observers].

Wilson's Snipe (Common Snipe) *Gallinago gallinago* [WiSn; CoSn]

Fundy

Present Status: common summer resident; (M, E, others) arrivals, earliest 9 Apr, mean 23 Apr (17 yr); max (Apr-Jul) 8+; (Aug-Oct) 20+; departures, mean 13 Oct (9 yr), latest 7 Nov; winter report, 12 Feb 1999 (1), Tantramar msh (J Tanner and F Dubé, in NB Nat); (Atlas, MNRS) in 13 squares, breeding confirmed in 5; 2 nests (all years), eggs 13 May-18 Jun, Memramcook L 1989, Sackville 1995 (S Tingley, A Smith); (Habitats, Distribution) widely around wetlands, occasional over other habitats, e.g. Memramcook, Sackville, Aboushagan rd, Centre Vill, Jolicure, Eddy msh, Amherst Pt MBS, R Hebert, Athol.

History: (M) nr Memramcook in 32 yr 1931-77; arrivals, stragglers 27 Feb 1971 (in NB Nat), earliest 10 Apr, mean 19 Apr (17 yr); max (Apr-Jul) 7, (Aug-Oct) 123; departures, mean 22 Oct (15 yr), latest 8 Nov (stragglers 16 Nov 1969, 30 Nov 1968); (P) arrivals 1938-46, mean 14 Apr (3 yr) (per J Tingley); (B) "Very common summer resident", 3 nests 5-22 Jun, max (Jul-Sep) 60; (E) arrivals, straggler 28 Mar 1963; earliest 9 Apr, mean 23 Apr (7 yr); max (Apr-Jul) 13, (Aug-Oct) 50; departures, mean 6 Oct (4 yr), latest 13 Oct; (Others) exceptional numbers 1-10 Oct 1976 (300-500), Amherst Pt MBS (CD, in NSBSN); early stragglers 26 Feb 1976, Missiquash msh (B Mactavish, in NB Nat), 17 Mar 1980 (1), J Lusby msh (ST,CD, in NSBSN).

Strait

Present Status: fairly common summer resident; (E) 22 Apr-30 Jul, max 7+; (Atlas, MNRS) in nrly all squares, confirmed in 2; nest, eggs 31 May 1994, E Leicester (K Spicer); (Habitats, Distribution) widely around wetlands, e.g. Anderson Sett, Cape Jourimain NWA, Cape St Laurent, Port Elgin, Tidnish R; (CBCs) Cape Tormentine 1999 (1).

Changes: no consistent changes in status, but slightly longer season and higher maxima in past may suggest decrease; BBS indices, nearby rtes -2.2%+ (14), Ecozone -0.7% (79).

American Woodcock *Scolopax minor* [AmWo]

Fundy

Present Status: fairly common summer resident; (E) 17 Apr-12 Oct, max 5+; (Atlas, MNRS) in 9 squares, breeding confirmed nr Amherst; 4 nests (all years), eggs 27 Apr-28 May (N and P Buchanan, D Lawson, G Johnstone); (Distribution) nr Rockport, Sackville, Fairfield, Breau Crk (upper), Aboushagan rd, Cookville, Midgic, Maccan.

History: (M) nr Memramcook in 18 yr 1930-74; arrivals, earliest 27 Mar, mean 14 Apr (14 yr); max (Apr-May) 5, (Oct) 6; latest 13 Nov; (P) arrival 1 Apr 1946 (per J Tingley); (B) "locally common", 24 Mar-20 Jun, no fall records; (E) 30 Mar-7 Oct, max 6.

Strait

Present Status: fairly common summer resident; (E) 12 May-15 Jul, max 3; (Atlas, MNRS) in 12 squares, confirmed in 4; nest, eggs 15-23 May 1967, Tidnish (W McNutt); (Distribution) also nr Anderson Sett, Timber R, Tidnish R.

Changes: data too sparse for detecting trends; impression of decline 1950s-70s, when correlated with forest spraying using DDT; possibly some recovery in 1990s.

Wilson's Phalarope *Phalaropus tricolor* [WiPh]

Fundy

Present Status: scarce summer visitant, probably breeding occasionally; (E, others) early May- 16 Oct 1985 (in NB Nat), max 9; (Atlas) flying yg found at Sackville sew lgn and Rampasture saltmsh 1988-91 - confirmed breeding likely, also probable breeding nr Jolicure, Amherst Pt, sightings in several other squares; (Distribution) also at Rampasture saltmsh, 1983-87 (some before Atlas); Sackville and Dorchester sew lagoons Aug 1984, 13-29 Aug 1993; Tantramar R dam Aug 1988 (ST, in NB Nat); Sackville Waterfowl Park 1995-99 (var obs, in NB Nat); Mid Sackville sew lgn 11 May 1994 (13) (D Doucet, in NB Nat; K Popma); Taylor Vill impmt 11 Sep 1999 (2) (A Clavette, in NB Nat).

History: (M) and (B) didn't note it; (E) none before 1983; (T) nr-annually since 1974, suspected breeding 1980 - m and 2 im 16 Jul-9 Aug (many obs), at Tintamarre NWA, Tonges I, Eddy msh, John Lusby msh.

Strait

Present Status: scarce summer visitant; (E, others) 10 May 1981, Cape Jourimain NWA (CWS files); 14 Jul 1988, Bayfield (E, in Atlas); 19 May-22 Jun 1993 (4-2), Cape Jourimain NWA (C Adam, in NB Nat).

History: (Others) first local record 17 Aug 1972, also 1 Jun-21 Sep 1973 (max 4), all Cape Jourimain NWA (D Finch, ST, in NB Nat).

Notes: a recent arrival in Maritimes; first suspicion of breeding 1978 (locally) [confirmed 1986 at Grassy I, N.B.; no breeding known in N.S., P.E.I.].

Red-necked Phalarope *Phalaropus lobatus* [RnPh]

Fundy

Present Status: summer vagrant; (M) 14 Jul 1982 (2), Grande Anse; (Others) 16 Aug 1990 (1), J Lusby msh (E and A Mills, in NSB); 20 Aug 1991 (2; after Hurricane Bob), Sackville sewage lgn (C Ellingwood, in NB Nat).

History: (T) at John Lusby imp'm'ts 25 Aug 1973 (1), 8 Aug 1976 (1), 13 Jul 1980 (1);

Strait

Present Status: [no reports nr Strait].

Notes: noted regularly nr mouth of Bay of Fundy in 1960s and 1970s, scarce later; not expected in muddy waters of upper Bay; few records on days with or following winds stronger than average, suggesting not all were storm-strayed birds (unlike RePh).

Red Phalarope *Phalaropus fulicaria* [RePh]

Fundy

Present Status: fall vagrant (all storm-blown into area?); (E) Grande Anse 16 Sep 2000 (2), on 3rd successive day of strong S winds.

History: (M) Memramcook L 8 Oct 1972 (1); (Others) 21 Oct 1973 (2), Amherst Pt MBS (CD, in T); 10-14 Sep 1975 (2), J Lusby msh (CD, in NSBSN).

Strait

Present Status: [no reports nr Strait].

Notes: noted regularly nr mouth Bay of Fundy, not expected in muddy waters of upper Bay unless storm-driven.

Parasitic Jaeger *Stercorarius parasiticus* [PaJa]

Strait

Present Status: vagrant; (Others) 7 Sep 1993, Cape Jourimain NWA (M Crowell, in NB Nat).

History: (Others) one (3rd-hand) report, 20 Sep 1978 (1, chasing terns), Tidnish (A Clarke, per CD, in NSBSN), seemed plausible.

Notes: [uncommon in Maritimes, mainly offshore Atlantic coast of N.S. and mouth Bay of Fundy]; occasional straying likely.

Franklin's Gull *Larus pipixcan* [FrGu]

Fundy

Present Status: vagrant; (M) 3-11 Jul 1982 Grande Anse, detailed descriptions exclude other spp.

Strait

Present Status: [no earlier or later reports, nor at Strait].

Notes: [occasional reports in N.B. and N.S. since early 1970s; main range (in Canada) on Prairies, migrating to Gulf of Mexico and Pacific Ocean; thus clearly a vagrant here].

Little Gull *Larus minutus* [LiGu]

Fundy

Present Status: summer vagrant; (Others) 1 Sep 1991, Cape Tormentine (S Makepeace, in NB Nat).

History: (Others) 30 Jun 1974 (1 im) (in NB Nat); 5 Aug 1978 (1 ad) (CD, in NSBSN), both Cape Jourimain NWA.

Notes: [rare in Maritimes, all seasons].

Common Black-headed Gull *Larus ridibundus* [BhGu]

Fundy

Present Status: spring vagrant; (Others) 16 May 1982 (1), Sackville sew lgn (ST, in NSB and NB Nat); [no earlier or later reports].

Strait

Present Status: spring vagrant; scarce summer-fall transient, sometimes lingers to CBCs; (E, others) 5 Dec 1981 (1), Linden (ST, in NSB); 30 Nov 1989 (1), Cape Tormentine (O LeBlanc and ST, in NB Nat); 5 Jul 1992 (1, moult), Northport (W Crins, in NSB); 3 Aug 1992 (1), Baie Verte pond (ST, in NB Nat); 3 Aug 1995 (2 ad), Murray Bch (E).

History: (E) 4 Apr 1968 (3 ad) Port Howe; (Others) 12 Nov 1972 (1 ad), Cape Jourimain NWA (D Christie and Majkas, in NB Nat); 5 Oct and 30 Nov 1975, 4 Dec 1977 (2-3), 30 Sep-5 Nov 1978 (2-4), 16 Sep 1979 (2), Northport, Linden, 17 Jul 1978 (1 non-br ad), Cape Jourimain NWA (all ST, in NSBSN); (CBCs) Cape Tormentine 1966, 1969, 1979 (singles).

Notes: [first detected in Maritimes 1950s (see Erskine 1963); gradual increase, to breeding in Nfld and Magdalens from late 1970s]; too few records here for trend, but increase plausible.

Bonaparte's Gull *Larus philadelphia* [BoGu]

Fundy

Present Status: scarce visitant/transient, spring to fall; (M) 27 Jul and 12 Sep 1982, 6 Aug 1994, max 3, all Grande Anse; (E) 3 May 1987, Sackville sew lgn; (Others) 7 Jul, Amherst Pt MBS, and 22 Jul 1981, Tantramar R (ST, in NSB); (Distribution) also at Rampasture saltmsh.

History: (M) at Memramcook L in 5 yr 1937-79, 22 Jul-26 Oct, max 4; (B) "Occasional transient... ", 2 mid-Aug records at Midgic 1948-49; (E) 12-22 Sep, max 3, at Sackville, Jolicure, Amherst Pt MBS; (T) at Chignecto NWA, 3-4 May and 5 Oct 1974, 1 Jul 1978 (singles).

Strait

Present Status: fairly common visitant/transient, spring to fall; (E) 15 May-21 Nov; max 160*; (Distribution) along shores Murray Cor to Cape Tormentine to Baie Verte to Amherst Shore Prov Park to Port Philip; (CBCs) Cape Tormentine 1998 (12).

History: (E) spring 23-29 May, max 34; fall 21 Jul-12 Nov, max 230; (Others) fall max, 26 Oct 1974 (450+), Cape Tormentine, 5 Nov 1978 (425), late date 4 Dec 1977 (75+), Northport, Linden (ST, in NSBSN); (CBCs) Cape Tormentine 1973 (4).

Note: a report (by F Lavender, in NSB) of 1100 of this species at Tidnish fall 1991 (day/month not given) seems likely a publication error [such numbers known in Maritimes only nr mouth Bay of Fundy and St Georges Bay].

Changes: no evidence of changed status.

Mew Gull *Larus canus* [MeGu]

Fundy

Present Status: fall vagrant; (Others) 11-12 Nov 1984 (1), Silver L, Sackville (ST et al, in NB Nat); (CBCs) Amherst 1990 (1).

Notes: [a few records known, of both western America & European subspecies, in N.B. and N.S.].

Ring-billed Gull *Larus delawarensis* [RbGu]

[updated from earlier Maritimes summary (Erskine 1993)]

Fundy

Present Status: common transient and uncommon summer visitant (non-breeding); a few linger to CBCs some years; (E, others) spring arrival, earliest 15 Mar, mean 21 Mar (7 yr); max 500+ (13 Apr 1984, J Lusby msh; F Lavender, in NSB); departure early May; most years <20 at Sackville mid-May to mid-July; fall arrival late July; max 175+; departure, mean 28 Nov (11 yr); (Distribution) noted widely, incl Grande Anse, Rampasture, Sackville, Midgic, Amherst; (CBCs) Sackville 9 yr (max 26, 1990); Amherst 5 yr (max 34, 1994).

History: (M) nr Memramcook in 18 yr 1946-79; arrival, stragglers 18 Mar 1973 (2), earliest 2 Apr, mean 13 Apr (10 yr), max 105, none late May to mid-Jul; fall max 18; departure, mean 31 Oct (7 yr), latest 10 Nov, stragglers to 22 Dec; (B) none noted (in his limited area); (E) [none in 1960s]; 8 Jun 1979 (1), 28 Jul-22 Oct, max 6; (Others) 18 Sep 1961 (2), Mid Sackville, then considered exceptional (A Squires, in Nat News); (CBCs) Sackville 6 yr (max 16, 1973).

Strait

Present Status: common transient and uncommon summer visitant (non-breeding); linger to CBCs, but seldom later; (E, others) spring, 24 Mar-late Apr; max 300+ (ST, F Lavender, E); most years >20 mid-May to mid-July; fall, late July-Dec, max 300+; (CBCs) Cape Tormentine 19 yr, max 252 (1981), 254 (1991).

History: (E) arrivals, unusual 7 Mar 1964, earliest 4 Apr 1968 and 1980, mean 12 Apr (5 yr); max (spring) 28, (Jun-Jul) 7, (Aug-Nov) 152, departure, mean 16 Nov (9 yr), latest 11 Dec 1967; (Others) fall max 4 Dec 1977 (400+), Linden (ST, in NSBSN); (Distribution) shores Lit Shemogue to Cape Tormentine to Baie Verte to Port Philip; (CBCs) Cape Tormentine 16 yr (max 247, 1979).

Changes: not detected in area before 20th Century, increase began 1940s, more from 1960s [1st bred in N.B. 1965 - Bathurst], increase continuing to present, when lingering into winter; [overwinters nearby at Moncton, feeding at malls and fast-food outlets].

Herring Gull *Larus argentatus* [HerG; HeGu]

Fundy

Present Status: uncommon to fairly common year-round resident, non-breeding; common transient; (E) all months, max (Mar-Apr) 50+, (May-Jun) 40+, (Jul-Nov) 350, (Dec-Feb) 60+; (Habitats) noted widely, on sea, beaches, lakes, sewage lagoons, fields, landfills, and flying over all habitats; (CBCs) Sackville all 20 yr (max 419, 1990); Amherst all 20 yr (max 1189, 1991).

History: (M) at Memramcook in 41 yr 1929-80; noted all months, none in Feb until 1964; max (Mar-Apr) 89, (May-Jun) 60+, (Jul-Nov) 200+, (Dec-Feb) 40; (B) "Common transient and visitant... at any time of year", max late summer 100+, winter 49; (E) all months, max 150 (regular, not always recorded); (CBCs) Sackville all 21 yr (max 414, 1978); Amherst 19 yr (max 553, 1970).

Strait

Present Status: fairly common to common year-round resident, non-breeding; common transient; (E) all months, max (Mar-Apr) 360+, (May-Jun) 150, (Jul-Nov) 300+, (Dec-Feb) 1800+ (around cattle farm, Linden); (Habitats) noted widely, on sea, beaches, estuaries, sewage lagoons, fields; (CBCs) Cape Tormentine all 20 yr (max 553, 1991).

History: (E) all months, max 1000+ (19 Nov 1978), e.g. Cape Jourimain, Cape Tormentine, Baie Verte; (CBCs) Cape Tormentine all 20 yr (max 5552, 1979 - exceptional, when squid died-off along all shores there; next high 680, 1975).

Notes: nearest breeding at Grindstone I (5 km SW on Fundy), and Pugwash (5 km E on Strait).

Changes: probably increased and later decreased (in summer) during our period, decline resulting from closing of open dumps and end of dumping from Strait ferries; BBS indices, nearby rtes -1.0% (12), Ecozone -1.7% (55).

Iceland Gull *Larus glaucoides* [IcGu]

Fundy

Present Status: Uncommon winter visitant, a few linger to early summer; (M) stragglers 10 July 1981 (1), 17 May 1994 (12 subad), Grande Anse; (E) 21 Oct-2 May; mostly <15 (max 40, College Bridge 16 Jan 2000); (Others) straggler 4 Jun 1990 (1), Sackville (C Ellingwood, in NB Nat); (Distribution) at Memramcook L and Sackville sew lgn (most), Tantramar and Laplanche Rs, Cape Maringouin; (CBCs) Sackville 18 yr (max 50, 1995, not >8 until 1994); at Amherst 16 yr (max 24, 1999).

History: recent arrival; (M) first noted, nr Memramcook, 6 Mar 1964 (1); 30 Jun 1974 (1), 16-21 May 1974 (3), 1 May-31 Aug 1979 (1); (E) 28 Dec 1965 (1), Sackville; (CBCs) Sackville 5 yr (1965, 1973-77; singles); Amherst 1977, 1979 (singles).

Strait

Present Status: Fairly common winter visitant, stragglers through spring; (E) 18 Oct* -17 Apr; mostly <15, max. 120*, 21 Apr 1984, Cape Tormentine; a few lingered later - 22 May 1993 (5), 14 June 1995 (1), also at Cape Tormentine; (Distribution) Murray Cor, Cape Jourimain NWA, Bayfield, Cape Tormentine (most - until ferries ended 1996), Cape Spear, Baie Verte, Linden, Port Philip; (CBCs) Cape Tormentine all 20 yr (max 226, 1990, only 29 1999-2000).

History: (P) regular into May earlier, e.g. 12 May 1941 (7); (E) arrival, earliest 24 Oct 1977, mean 14 Nov (4 yr); max 198 (28 Dec 1966); departure, mean 17 Apr (5 yr), latest 23 Apr 1960, straggler 26 May 1966; (Others) 29 May 1970 (3 im) (D Christie, in NB Nat), Cape Tormentine; (CBCs) Cape Tormentine all 20 yr (max 199, 1966).

Notes: report of 150 of this species on 29 Sep 1991 at Northport, credited to NSBS field trip - but not mentioned in report of that trip, presumably publication error for another species (in NSB).

Changes: first noted around Fundy mid-1960s, gradual increase from early 1970s; irregular recent decline nr Cape Tormentine (garbage dumping from ferries ended ca. 1980; ferries replaced by bridge after 1996).

Lesser Black-backed Gull *Larus fuscus* [LBbG]

Fundy

Present Status: rare vagrant; (CBC) Sackville 1997 (1).

Strait

Present Status: spring and fall vagrant; (Others) 18 Apr 1982 (1 ad), Port Philip (ST, in NSB); 21 Jun 1986 (1 ad), Cape Tormentine (M Bain, in NB Nat); 7 May 1994 (2), Murray Cor (ST, in NB Nat); 4 Sep 1999 (1 ad), Cape Tormentine (J Tanner, in NB Nat).

Notes: [a few individuals overwintered in N.S. (most) and N.B. since late 1960s]; probably some were missed among other large gulls, which are seldom examined or counted carefully; local 4 Sep date is earliest fall report in region.

Glaucous Gull *Larus hyperboreus* [GlGu]

Fundy

Present Status: scarce winter visitant; (CBCs) Sackville 5 yr (max 2); Amherst 3 yr (max 2).

History: (M) nr Memramcook in 4 winters 1964-72, 20 Nov-27 Mar, max 2, most College Bridge (tidal estuary); (B) none noted; (E) 10 Nov 1965, Sackville (1) (in B Addendum); (T) 23 Mar 1974, J Lusby msh; (CBCs) Sackville 4 yr (max 2).

Strait

Present Status: uncommon winter visitant; (E) Linden 27 Mar 1999 (2, attacking other gulls); (CBCs) Cape Tormentine 12 yr (max 5, 1990).

History: (P) several times early May 1937-44, Cape Tormentine; (Others) 26 Apr 1980 (1 im), Port Philip (ST, in NSBSN), 16 Nov 1980 (2), Cape Jourimain NWA (CNC, in NB Nat); (CBCs) Cape Tormentine 11 yr (max 23, 1961).

Changes: formerly more common, apparently decreased before end of garbage dumping from ferries in late 1970s.

Great Black-backed Gull *Larus marinus* [GBbG]

Fundy

Present Status: fairly common year-round visitant, not known to breed, but a few may do so; (E) all months, less often in winter; max (Jan-Mar) 40+ (except 300+ Jan 1990 and Feb 1991), (Apr-Sep) 100, (Oct-Dec) 35; (Habitats) mostly around tidal waters, sewage lagoons, landfills, less often and less general after coastal dumps closed in 1980s; (CBCs) Sackville 20 yr (max 463, 1996 - no other recent yr >100); Amherst 19 yr (max 1309, 1994).

History: (M) nr Memramcook, none before 1946, nor >6 until 1964, increasing to 1970s, max 200 (27 Mar 1971, Dorchester); (B) "Fairly common transient and very rare winter resident", max 20; (E) regular at Sackville dump, e.g. 72 (Dec 1960), 150+ (Jan 1978), few elsewhere; (CBCs) Sackville all 21 yr (max 154, 1980); Amherst 15 yr (max 557, 1972).

Strait

Present Status: fairly common year-round resident; (E) all months, less often in winter; max (Jan-Mar) 25, (Apr-Sep) 40+, (Oct-Dec) 52; (Atlas) confirmed breeding in 2 squares (Northport, Pugwash), a few pairs likely breed elsewhere on offshore breakwaters or saltmarsh islets; (Habitats) mostly around tidal waters, flats, estuaries; (CBCs) Cape Tormentine 20 yr (max 508, 1990).

History: (E) regular on all visits, max 65 (Dec 1965); (CBCs) Cape Tormentine all 20 yr (max 502, 1979).

Changes: probably increased through 1970s, then decreased, tracking availability of garbage [status obscured by incomplete notes earlier]; BBS indices, nearby rtes -6.3%* (11), -0.8 (50).

Black-legged Kittiwake *Rissa tridactyla* [BlKi]

Fundy

Present Status: vagrant; (Others) 18 May 1982 (47 - 3 grps), flying up Cumberland Basin (ST, in NB Nat).

History: Amherst CBC 1968 (3) [seems unlikely]; Cape Tormentine CBC 1974 (3).

Strait

Present Status: [no reports nr Strait].

Notes: [This pelagic species is a vagrant in upper Bay of Fundy and Northumberland Strait (where no records given by Brown 1986); storm-drifted birds occur inshore occasionally; possible confusion of immatures with (little less unlikely) BhGu does not reduce improbability of these records].

Sabine's Gull *Xema sabini* [SaGu]

Strait

Present Status: vagrant; (Others) 15-16 Nov 1998 (1 im), Murray Cor (R LeBlanc, in NB Nat).

Notes: [scattered records, mostly on ocean coasts, in N.B. and N.S., mostly May-Jun and Aug-Sep, only 3 later]; local report was unusual in both location and date.

Ivory Gull *Pagophila eburnea* [IvGu]

Strait
Present Status: vagrant; [no recent reports].
History: Cape Tormentine CBC 1975 (1, convincing description, A Smith).

Notes: [an arctic bird, vagrant anywhere in Maritimes, where nearest records Saint John 1945, Digby 1979]; local record well-documented, but clearly exceptional.

Gull-billed Tern *Gelochelidon nilotica* [GbTe]

Strait
Present Status: vagrant; (Others) 28 Jul 1994 (1), from ferry off Cape Tormentine (B Maybank, in NB Nat).

Notes: [1879 specimen was only N.B. record to 1975 (Squires 1976); 9 sightings (1 photo'd) in N.S. May-Oct 1963-84 (Tufts 1986)]; local report was within date range of previous reports.

Caspian Tern *Sterna caspia* [CaTe]

Fundy
Present Status: spring stragglers, uncommon fall transient; (E, others) spring 2 May 1997, Sackville w-f pk (var obs, in NB Nat); 16 Jun 1991 (1), Amherst Pt MBS (CD, in NSB); fall 2 Aug-2 Oct, max 2; (Distribution) at Grande Anse, Sackville (w-f park), Amherst Pt MBS (most).
History: (M) at Memramcook L 1-15 May 1973 (1-4); (Others) 30 Jul-1 Aug 1975, J Lusby impmt (T; and CD, in NSBSN).

Strait
Present Status: spring stragglers, uncommon fall transient; (Others) spring 5 Jun 1993, Port Howe (B Maybank, in NSB); 23 Jun 1995 (1), Cape Jourimain NWA (C Adam, in NB Nat); fall 1 Sep-24 Oct, max 12 (9 Sep 1999) (var obs, in NB Nat, NSB); (Distribution) at Cape Jourimain NWA, Cape Tormentine, Port Elgin, Amherst Shore, Linden.
History: (E, others) 24 Jul 1973 (ST, in NB Nat), 17 Aug 1979 (D Morton, E), both Anns Acres/Cape Jourimain NWA.

Changes: perhaps some increase - no reports before 1973 [from increased, but still minor, breeding in Nfld & Labrador?].

Royal Tern *Sterna maxima* [RoyT]

Strait
Present Status: vagrant; (Others) 17 Aug 1992 (1), Linden (E and A Mills, in NSB).
Notes: [5 reports (20 Jul-22 Oct, most after tropical storms) 1958-79 in N.S. (Tufts 1986); not reported in N.B. (through 1976), nor P.E.I.].

Common Tern *Sterna hirundo* [CoTe]

Fundy

Present Status: occasional scarce summer visitant, breeding known only in 1987; (E) 21 May-8 Aug, max 10, at Rampasture (1984-89); (Atlas) ads fdg yg at Rampasture Jul 1987; also seen nr Amherst.

History: (M) at Memramcook L 1965-73, 18 May-1 Sep, max 6; (B) none (in his area); (Others) summer 1966, max 2, Missiquash msh (A Smith), summers 1972-73, max 8, Tintamarre and Chignecto NWAs (T); 5 Aug 1979 (8), Amherst Pt MBS (ST, in NSBSN).

Strait

Present Status: fairly common local summer resident; (E, others) arrival, earliest 20 May, mean 26 May (5 yr); max (May-Jun) 8+, (Jul-Sep) 80+*; departure, mean 19 Sep (14 yr), latest 19 Oct, stragglers 5 & 21 Nov 1993 (ST, in NB Nat; E); (Atlas, MNRS) in 8 squares, breeding confirmed in 4; nests at Johnsons Pt (1983,1986), Cadman Pt (1987), Cape Jourimain NWA (1981) (var obs); (Distribution) locally along shores Cadman Cor to Port Philip.

History: (E, others) breeding Cape Jourimain NWA, Monash Pt; in summer (May-Jul) also - breeding unproved - Murray Bch to Cape Tormentine to Baie Verte to Port Philip; (Aug-Oct) also at Cadman Cor, Upper Cape, Timber R, Port Elgin, Amherst Shore Prov Park, Northport; recent high fall counts 40-80 Anns Acres, Cape Jourimain NWA, Northport.

Notes: [report (F Lavender, in NSB) of 1000 on 8 Sep 1991 Tidnish-Wallace likely involved publication error (for another species)].

Changes: certainly declined in observation frequency and locations, probably also lower numbers (few details).

Arctic Tern *Sterna paradisaea* [ArTe]

Fundy

Present Status: [no reports nr Fundy].

Strait

Present Status: vagrant; [no recent records].

History: 26 Oct 1974 (1), Cape Tormentine (ST, in NSBSN).

Notes: [nearest confirmed breeding (Atlas) at Kouchibouguac, N.B. and N shore P.E.I.]; vagrancy to Strait scarce, but plausible.

Black Tern *Chlidonias niger* [BlTe]

Fundy

Present Status: uncommon summer resident; (E) 18 May-3 Aug, max 9*; (Atlas) breeding confirmed nr Amherst, probable at White Birch impmts; also noted at Tintamarre NWA, Eddy msh, Amherst msh, Amherst Pt MBS.

History: (M) at Memramcook L 25 and 29 May 1973 (1); (B) (presumably) vagrants at Midgic 15 Jun and 12 Aug 1949; (E) 15 Jul 1978 (1), Tintamarre NWA; 14 Jun (4), 19 Jul (1), 1980, Amherst Pt MBS; (T) nesting (no details) at those locations and at Missiquash msh and Eddy msh 1975-77, total 20 pr; (Others) 1st breeding, newly flying yg nr Midgic Jul 1967 (H Harries, in B Addendum); 13 Jun 1970 (2), Jolicure Front L; summers 1972 (4) and 1973 (10, incl yg; latest 19 Aug), Missiquash msh (in NSBSN); arrival, 12 May 1977 (1), 22 May 1978 (1), Amherst Pt MBS (CD, R Burrows, in NSBSN);

Strait

Present Status: [no records nr Strait].

Notes: report (B Maybank, in NSB) of total 140 in Amherst area 5 Jun 1993 seems improbable, even for several sites combined, perhaps misquoted in publication?
Changes: colonized this area - few vagrants earlier - starting 1966 (with devt of impmts by DU), numbers highest soon after impmt, declining later.

Dovekie (Little Auk) *Alle alle* [Dove; Dovk]

Fundy
Present Status: irregular winter vagrant (storm-driven); [no detailed reports recently].
History: (M) 3 reports (2 strandings, 2 others on water) nr Memramcook 20-21 Nov 1971 (after N storm for 3 days; see below, T); (E) specimens prep, 3 Dec 1960 (1 dead), Brooklyn rd; 3 Jan 1963 (1 injured, died), E of Amherst (B Addendum); (T, others) 3 Dec 1966 (1), Pt de Bute (M Trueman, in Nat News); "A major wreck... upper Bay of Fundy" 19-20 Nov 1971, 1 alive 21 Nov Rampasture, 1 dead 26 Nov Aulac msh.

Strait
Present Status: irregular winter vagrant (storm-driven); (Others) Cape Tormentine CBC 1990 (1, + another found dead a few km distant next day) [a flock of oiled Dovekies beached in P.E.I. earlier that month; local birds perhaps from same movement]; probably also in storm 1-2 Feb 1992, when 40+ stranded along Strait coasts of N.B. - no locations given (M Majka, in NB Nat).

Changes: too few records for trend, reports more frequent earlier.

Common Murre *Uria aalge* [CoMu]

Fundy
Present Status: vagrant; [no recent records].
History: 6-7 June 1978 (1), in pond nr R Hebert (F Spalding, in NSBSN).

Notes: [in Maritimes, mainly winter records off outer coasts]; local report conceivably a storm-driven bird, lingering in upper Bay of Fundy since winter?

Thick-billed Murre *Uria lomvia* [TbMu]

Fundy
Present Status: irregular scarce winter vagrant (storm-driven); (Others) 22 Nov 1994 (1), shore nr Aulac (ST and R Doiron, in NB Nat); major event, 9 Mar 2001 (5+), Tantramar msh and nr Sackville (K Popma); [other reports in se N.B. and no N.S. for a week around that date {NBNat 28(1): 29-30, 2001}].
History: (B) 21 Dec 1954 (1 fd alive, banded and released); (T, others) 20 Nov 1971 (1 fd in field), nr Sackville, late Dec 1976 (several grounded on local marshes); 4 Jan 1972 (1 dead), Aulac (CWS specimen).

Strait
Present Status: irregular scarce winter vagrant (storm-driven); (CBCs) Cape Tormentine 1990 (1, at Murray Cor; ST).

Notes: too few records for trend [storm strandings of TbMu were more frequent in past (Tufts 1962;

Gaston 1988)]; seldom seen inshore (except at colonies - none in Maritimes).

Black Guillemot *Cepphus grylle* [BlGu]

Strait
Present Status: irregular winter visitant; (CBC) Cape Tormentine 1994 (1), 1999 (3).
History: (P) 11 May 1939, off Cape Tormentine.

Notes: [breeding confirmed (Atlas) on Northumberland Strait coasts of P.E.I., 20 km N and 100 km E of Cape Tormentine]; records at any season thus might be expected - but records remain scarce despite many observers on ferries (to 1996).

Atlantic Puffin *Fratercula arctica* [AtPu]

Fundy
Present Status: [no recent reports].
History: (T) imm fd alive Mid Sackville 8 Nov 1974, released at Baie Verte next day (A Smith).

Strait
Present Status: vagrant; Cape Tormentine (C Majka, in NB Nat); (Others) 19 Apr 1990 (6).

Notes: all presumably storm-driven, as not expectable (at sea) nearer than mouth of Bay of Fundy.

Rock Pigeon (Rock Dove; feral Pigeon) *Columba livia* [RoPi; RoDo]

Fundy
Present Status: introduced, locally common year-round resident; (E) all months, max 103+; (Atlas, MNRS) in 17 squares, breeding confirmed in 11; 36 nests (all years), eggs 19 Apr-30 Jul, yg 1 May-30 Jul (E Lowerison, W McNutt, C Weeks); (Habitats, Distribution) widely around buildings, including barns on marsh far from houses, e.g. Beaumont, Dorchester, Westcock, Sackville, Midgic, Jolicure, Laplanche R, Amherst, Truemanville, Maccan, R Hebert, Little Forks; (CBCs) Sackville all 20 yr (max 458, 1998); Amherst all 20 yr (max 538, 1986).
History: species largely ignored by birders [considered 'domestic'] until after WW2, few sightings noted until 1960s; (M) at Memramcook in 28 yr 1944-78 (surely present earlier), seen all months, max 65 (no counts >10 May-Sep); (B) not mentioned (certainly present); (E) few entries before 1978, not noted all months, max 190; (CBCs) Sackville 13 yr (not ctd early years; max 404, 1979); Amherst 9 yr (not ctd early years; max 445, 1979).

Strait
Present Status: locally fairly common year-round resident; (E) all months, max 208+ (esp. recent winters at cattle-farm, Linden); (Atlas, MNRS) in all but one square, confirmed in nrly all; 4 nests (all years), eggs 12 Jun, yg 12 Jun-16 Aug (L Carbyn, W McNutt, N Garrity); (Distribution) widely around farms and villages, e.g. Shemogue, Murray rd, Cape Jourimain NWA, Melrose, Baie Verte, Tidnish R, Lorneville, Northport, Linden, Port Philip; (CBCs) Cape Tormentine all 20 yr (max 207, 1997).
History: (E) ctd only on CBCs until 1980; (CBCs) Cape Tormentine 18 yr (max 136, 1980).

Notes: presumably all derived, many generations ago, from domestic birds; no history of introductions here, no recent history of captive stock locally.
Changes: some decrease in our period, paralleling decline in local agriculture (for feeding) and outbuildings (for nesting); BBS indices, nearby rtes -0.5% (13), Ecozone +7.1%+ (59).

Mourning Dove *Zenaida macroura* [MoDo]

Fundy

Present Status: increasingly frequent year-round resident; (E, others) all months; few wintering until 1985, high (feeder) counts Feb 2000 incl Sackville (70), Frosty Hollow (42), Memramcook (35) (var obs, in NB Nat); spring calling began in May 1988-90, advancing to late Feb 1999-2000; last calling in Aug; (Atlas, MNRS) in 9 squares, breeding confirmed in 2; 2 nests, eggs Apr-25 May, yg 2-11 Jul, Sackville - on hanging plant! (S Parker), Fenwick (E Coates); (Distribution) at Grande Anse, Frosty Hol, Westcock, Sackville, Aboushagan rd, Jolicure, Mt Whatley, Lr Maccan; (CBCs) Sackville, incr from <15 1985-87 to 518 in 2000; at Amherst <20 thru 1994, to 261 in 1998.

History: (M) at Memramcook 9 Dec 1943 (1); not again until 27 Jun 1964; 6 Apr-17 Nov, max 3; (B) "Very rare" (3 records, 23 Aug-2 Oct, 1949-55); (E) a few Apr, Sep 1962-66, 1968 (away 1969-76); annually, Apr, Sep-Nov 1977-80 (max 2); (Others) 31 Mar 1979 (1), Up Nappan (E Lowerison Coates, in NSBSN); 5 Apr 1980, Amherst (in NSBSN); (CBCs) Sackville 3 yr 1969-74, max 5; Amherst 1976 (c.p.).

Strait

Present Status: scarce resident, few wintering; (E) spring 17 Apr 1993 (1), Cape Tormentine; 27 Mar 1999 (3), Tidnish, Lorneville; Jun-Aug all but 1 yr 1993-2000, Anns Acres-Melrose; (CBCs) Cape Tormentine <15 thru 1991, to 160 in 2000.

History: (E) 25 Oct 1964 (1), Port Elgin; 11 Sep 1967 (2), Shinimicas; 28 Sep 1968 (2), Cape Jourimain; (CBCs) first 1966 (9), 4 yr 1973-80 (max 22, 1979).

Changes: arrival since 1960; mostly scattered 1s or 2s until major increase and breeding after 1984; BBS indices, nearby rtes +23.8%* (13), Ecozone +17.7%* (64).

Black-billed Cuckoo *Coccyzus erythrophthalmus* [BbCu]

Fundy

Present Status: irregular scarce summer resident; (E, others) 7 Jun 1986 (in NSB)-19 Jul; mostly singles, most by calls, few records after 1981 (e.g. Jun 1982, Amherst; CD, in NSB); (Atlas) found only in 4 squares, breeding not confirmed; (Distribution) nr Memramcook E, Grande Anse, Fairfield, Sackville, Amherst, Amherst Pt MBS.

History: (M) at Memramcook noted only 11 yr 1934-80, 1 Jun-31 Aug, max 2; (B) "Rare... calling each summer"; 6 Jun-6 Jul, at Westcock; (E) only Jul 1967 and Jul 1980, singles; (Others) Midgic (ST, in NB Nat; sev other rep that summer); latest date 15 Aug 1973 (1), Maccan, (ST, in NSBSN); Jun 1980, Amherst (CD, in NSBSN); (Distribution) also at Gaytons, Memramcook, Beaumont, Sackville, Amherst Pt MBS.

Strait

Present Status: irregular scarce summer resident; (E) 21 Jun-7 Aug, max 2; (Atlas) found in 7 squares (most on Cape Tormentine peninsula), breeding confirmed nr Northport; (Distribution) also nr Murray Cor, Bayfield, Cape Spear, Port Elgin, Tidnish R.

History: 12 Jul 1973 (8 hd), Bayfield (D Finch, in NB Nat).

Notes: 22 banded Tintamarre NWA 1972-78 (T) suggested sightings and calls then under-represented species.

Changes: declined latterly, always scarce and erratic - most in tent-caterpillar outbreaks (of which none noticed after 1981); BBS indices, nearby rtes -6.5%+ (11), Ecozone -9.9%+ (40).

Yellow-billed Cuckoo *Coccyzus americanus* [YbCu]

Strait

Present Status: fall vagrant; (Others) 26 Sep 1982 (1, freshly dead), nr Amherst (=Northport?) (R MacNeil, in NSB); Oct 1988 (1), Amherst Pt MBS (CD, in CNC); 11 Oct 1991 (1), Sackville (N Garrity, in NB Nat).

Notes: [fall vagrants of annual occurrence in Maritimes].

Barn Owl *Tyto alba* [BnOw]

Present Status: vagrant; (Others) 29 May 1971, Amherst, captured in Robb Engineering bldg, photo'd and released (per E Lowerison and A Smith); mid-Jan 1996, Cape Tormentine, entered abandoned bldg, later fd dead (per A Trenholm and J Edsall, in NB Nat).

Notes: [species resident where breeding, north-east to Ontario and so New England, only sporadic occurrences nearer to Maritimes].

Great Horned Owl *Bubo virginianus* [GHOw]

Fundy

Present Status: uncommon year-round resident; (E) not every year, records in most months, all 1s or 2s; (Atlas, MNRS) in 8 squares, breeding confirmed in 4;
3 nests (all years), yg 29 Apr-17 May, Jolicure, Fenwick, Minudie (R Blacquiere, E Lowerison, J Wile); (Distribution) widespread in woods, e.g. also at Fairfield, Breau Crk (upper), Cookville, Amherst Pt MBS, Salem; (CBCs) Sackville 4 yr (max 2); Amherst 3 yr (max 1).

History: (M) nr Memramcook only 9 yr 1931-80 (4 yr had 3-6 repeats in same area); (B) "Fairly common resident. Not often seen but frequently heard...". (E) [notes before 1980 omitted many sightings not positively identified as this species]; (Habitats, Distribution) usually in or at edges of forests or large woodlots; also at Calhoun, Beaumont, Breau Crk (upper); (CBCs) Amherst 1977 (1).

Strait

Present Status: presumably uncommon year-round resident; (E, others) few reports except in summer; 28 Aug 1972, Cape Jourimain NWA (A McInnis, in NB Nat); (Atlas, MNRS) in 11 squares, confirmed in 2; 3 nests (all years), yg 15 May-2 Jun, Coburg rd, Cape Jourimain NWA (W Barrow, S Tingley, K Popma); (Distribution) also nr Oulton rd, Port Elgin, Northport, Beckwith, Port Howe; [none on Cape Tormentine CBCs].

Changes: no suggestion of long-term trends, nor of cycles (with snowshoe hares); picture incomplete, owing to scanty observer activity at night in suitable habitats.

Snowy Owl *Bubo scandiacus* [SnOw]

Fundy

Present Status: irregular scarce transient and winter visitant; (E) 5 Nov-2 Apr, singles; (Others) max 5 at once (early winter 1982-83, ST, in NB Nat); reported to have summered 1987, Ft Lawrence (per D Currie, in NSB), and 1989 (later fd shot), Minudie (per B Dalzell, in NSB); (Habitats, Distribution) in or along edges of open areas; nr Westcock, Sackville, White Birch rd, Aulac, Ft Lawrence; (CBCs) Sackville 8 yr (max 11, 1987); Amherst 4 yr (max 2).

History: (M) only in 6 winters 1932-72, most nr Memramcook L, 27 Oct-5 Mar, max 4 (3 Dec 1938, College Bridge), straggler 21 May 1967; (P) 20 Oct 1941, Midgic; 30 Apr 1943, Aulac; (B) "Irregular transient and occasional winter visitant", 30 Mar-1 May; (E) in 5 winters 1960-61 to 1967-68, including 1964-65 and 1967-68 when McManus also saw them; most nr Highmarsh rd; straggler 2 June 1968; (Others) 16 Oct 1964 (D Myers, in NSBSN); 4 Jan 1971, nr Aulac (A Smith, in NB Nat); winter 1972-73 (3), Aulac (ST, in NB Nat); spring movement 27 Mar 1976 (6), nr Sackville (in NSBSN); straggler 20 Jun 1973 (1), Jolicure (B Turner, in NB Nat); (CBCs) Sackville 5 yr (max 4, 1967); Amherst 2 yr, singles.

Strait

Present Status: scarce winter visitant, Dec-Mar; (Others) latest 31 Mar 2000 (2), Cape Jourimain NWA (K Popma, in NB Nat); (CBCs) Cape Tormentine 3 yr (max 2).

History: (Others) Nov 1971, Upper Cape (A Smith, in NB Nat); (CBCs) Cape Tormentine 2 yr (max 2).

Changes: perhaps more frequent in 1960s than before or since; data too sparse for correlations with lemming cycle (in Arctic).

Northern Hawk-Owl *Surnia ulula* [NHOw]

Strait

Present Status: vagrant; (Others) Dec 1978-Feb 1979, Murray rd (fd by ST on CBC, already present 2 wks, later other obs); 18-19 Dec 1982, Cape Jourimain NWA (A Smith, incl CBC); 12 May 1991, 1.5 km N of Cape Tormentine (from ferry), mobbed by gulls (J Ouellette, in NB Nat) [noted exceptional late date].

History: 14 Dec 1975, Basse Aboushagane (N Belliveau, in NB Nat).

Notes: breeding known in N.B. (4+x, see Atlas) and N.S. (once), but not occurring regularly anywhere in Maritimes, despite near-annual sightings.

Burrowing Owl *Speotyto cunicularia* [BuOw]

Present Status: vagrant; (Others) 21-26 Jun 1978, Aulac msh (A Smith, in T).

Notes: [not known to breed nearer than Florida (2500 km SSW, residents) and sw Manitoba (2800 km WNW, migrants)]; sightings also in Ont and Que suggest vagrancy of prairie birds as least improbable origin.

Barred Owl *Strix varia* [BdOw]

Fundy

Present Status: uncommon year-round resident; (E, others) few recent summer reports (Mar-Sep); 13 Apr-10 May 1982 (1-2), Fenwick (E Coates, in NSB); (Atlas, MNRS) found in only 2 squares, breeding not confirmed then; nest nr British Sett 16 May-3 Jun 1980 (C MacKinnon, C Johnson); (Habitats, Distribution) in broad-leafed or mixed woods, nr Fairfield, Breau Crk (upper), Centre Vill, Maccan R, Fenwick; (CBCs) Sackville 1992 (1); Amherst 5 yr (max 2).

History: (M) 19 Sep 1965, Memramcook L; (B addendum) "B.C. Carter reported one near Midgic on April 24, 1957"; (E) one for 2 wk in Sackville Dec 1979 (incl CBC); calling 23 Mar 1980 nr Fenwick [where E Coates heard it regularly spring-summer]; (T) "Noted at... APBS (=Amherst

Pt MBS), Jolicure, Midgic and Woodpoint at all seasons"; (CBCs) Sackville 1979 (1); Amherst 3 yr (1978-80, max 2).

Strait

Present Status: presumably year-round resident; (Atlas) found in 11 squares, breeding in 2; (CBCs) Cape Tormentine 3 yr (max 2).

History: (CBCs) Cape Tormentine 3 yr (singles).

Changes: too few records to recognize status change.

Long-eared Owl *Asio otus* [LeOw]

Fundy

Present Status: scarce/uncommon year-round resident; (Others) few reports (mostly 2nd- or 3rd-hand), nr Amherst Pt 1 Aug 1983 (2) (CD, in NSB); J Lusby msh 1 May 1999 (1) (F Lavender, in NSB); Brooklyn rd 3 May 2000 (2+hd) (E); [a few may emigrate in fall - e.g. 8 banded on Bon Portage I (sw N.S.) Oct 1981 (P Smith, in NSB)]; (Atlas) found in 3 squares, breeding confirmed nr R Hebert; (CBCs) Sackville 1989 (1).

History: (M) nr Memramcook L, apparent (post-fledging) family groups roosting (ads foraging, yg begging - no nests seen) 25 Jul-12 Aug 1967 (max 4), 22 Jun-18 Jul 1970 (max 5), 17-24 Jun 1973 (max 5), also singles 25 Jun 1971, 26 Aug 1972; (B) "Very rare. One was heard by Robbins and Boyer at Aulac on May 26, 1952"; (Others) fd dead 9 Oct 1966 Highmarsh rd (CWS specimen); seen several times Dec 1970 in Sackville (town) (B, Addendum); [no CBC reports].

Strait

Present Status: scarce/uncommon year-round resident, seldom reported; (E) one flushed 3x in low woods Cape Jourimain NWA 4 Aug 1998; (Atlas) W of Upper Cape (pr, present for week Jun-Jul 1986, H Harries).

Changes: too few reports to detect trends, no major change.

Short-eared Owl *Asio flammeus* [SeOw]

Fundy

Present Status: irregular scarce summer resident; some lingered into winter; (E, others) 13 May (ST, in NSB) -8 Nov, max 4; (Others) some wintered on Tantramar msh 1990-91, 1995-96, 1999-2000, and at Taylor Vill 1999-2000 (var obs, in NB Nat); (Atlas, MNRS) found in 4 squares, breeding confirmed nr Sackville; 4 nests (all years), eggs 19 May-18 Jun, yg 16 May-11 Jul, all nr Midgic (H Peters and J Tingley), or Highmarsh rd (A Doberstein, R Simmons); (Distribution) also on Westcock msh, Aulac msh, CBC rd; (CBCs) Sackville 7 yr (max 4); Amherst 5 yr (max 19, 1998).

History: (M) nr Memramcook in 9 yr 1932-74, 3 Mar-10 Dec, max 5 (3 Mar 1974, in NB Nat); (B) "Fairly common summer resident", 22 Apr-22 Dec; (E) in 4 yr, 3 May-18 Dec, most singles; (Others) 1973, 15 seen at once (E Pulford, in NSBSN); 8-11 Apr 1978 (1), J Lusby msh (CD, in NSBSN); 1980, many nests fd Tintamarre NWA (R Simmons); (CBCs) Sackville 1976 (4); Amherst 3 yr (max 3).

Strait

Present Status: vagrant; [no recent records].

History: only Strait records, Cape Tormentine CBC 1978; Cape Jourimain NWA 26 Jul 1980.

Notes: irregular fluctuations throughout, peaked 1980 (with largest known irruption of meadow voles).

Boreal Owl *Aegolius funereus* [BoOw]

Present Status: scarce winter vagrant; (T) 16 Dec 1980 (1), Tintamarre NWA (R Hounsell).

Notes: [nearest in Atlas ('probable breeding') nr Pt Escuminac, N.B., 120 km N; considered rare in both N.B. and N.S.].

Northern Saw-whet Owl *Aegolius acadicus* [NSwO]

Fundy
Present Status: uncommon (year-round?) resident and (partial) transient; (E, others) few reports (most 2nd- or 3rd-hand, Jan-Mar); 2 victims (starved) reported or brought to CWS in snowy winters, in early 1990s; one roosted 2 wks Feb-Mar 1996 in Sackville garden; 7 Feb 2000, Taylor Vill (A Clavette, in NB Nat); (Atlas) one (summer) sighting, nr Sackville; never found on local CBCs.
History: (M) nr Memramcook in only 5 yr, 14 Oct 1932, 22-27 Apr 1949, 12 May 1950, 10 Jan 1965, 15 Apr 1980; (B) "Fairly common resident. Heard in late April and May during the Woodcock counts at Cookville, Aulac, Jolicure, and Rockport... one bird for every four miles"; (E) no local records then; (Others) in (former PiWo nest) hole summer 1969, Fenwick (D Myers, in NSBSN); [many reported fd dead Feb-Mar 1972 and 1975 elsewhere in NB, in NB Nat]; [none on local CBCs].

Strait
Present Status: [no reports nr Strait].

Notes: Winter starvation suggests (successful) wintering not frequent here; also passage migrants mist-netted at Bon Portage I, sw N.S., several years (in NSB).

Common Nighthawk *Chordeiles minor* [CoNi]

Fundy
Present Status: scarce summer resident and fall transient; (E) 2 June-24 Aug, max (Jun-Jul) 3, (migrants, from 7 Aug) 5+; (Atlas, MNRS) found in 4 squares, none confirmed; 3 nests, eggs 5-11 Jul, yg 11-30 Jul, Amherst 1963 (E Lowerison); Sackville 1983 (C Estabrooks, last urban breeding detected), 2000 (G Parker); (Habitats, Distribution) summer records after 1984 mainly from remote forest areas; noted at Sackville, Cookville, Brooklyn rd, Long L.
History: (M) at Memramcook in 17 yr 1929-73; arrival, earliest 25 May, mean 1 Jun (8 yr), max 4; departure, mean 17 Aug (8 yr), latest 31 Aug; migrating flocks up to est.75 (22 Aug 1932); (B) nest (eggs) nr Beech Hill 28 Jun 1949; migrating, 50 birds, 9 June 1955; (E) arrival, earliest 25 May, mean 4 June (14 yr); departure, mean 20 Aug (8 yr), latest 31 Aug.

Strait
Present Status: scarce summer resident; (E) mid-Jul to mid-Aug; max (Jul) 2, (migrants, Aug) 5+; (Atlas) found in 9 squares, none confirmed; (Distribution) at Stillman rd, Anns Acres.

Changes: major decline, and end of breeding in towns (wilderness breeding little changed?), since

1970; no migrating flocks >12 after 1970; BBS indices, nearby rtes -2.3% (6), Ecozone -4.4% (27).

Whip-poor-will *Caprimulgus vociferus* [Wpwi]

Present Status: summer vagrant; [no recent reports];
History: (B) 10 June 1949, Fairfield rd; (M),(E) never detected species (here); (Others) Jun 1975, Mid Sackville (L Smith, in T); 28 Jun 1978, W of Cookville (CNC).

Notes: [never regular in se N.B. (Squires 1976), nor N.S. (Tufts 1986)]; [apparent breeding reported nr Oxford (15 km SE of area) 1990 (Atlas)].

Chimney Swift *Chaetura pelagica* [ChSw]

Present Status: scarce summer resident; (Atlas) in 4 squares, incl nest (with yg) in chimney Up Sackville 28 Jul 1989 (R Penner; E); [no other recent reports].
History: (M,E) formerly fairly common summer resident; arrival, earliest 7 May, mean 21 May (18 yr); departure, mean 7 Sep (3 yr), latest 12 Sep, somewhat later and earlier, respectively, than provincial dates (Squires 1976); (Others) still regular late Jun 1980, Amherst (CD, in NSBSN);

Changes: major decline, and cessation of breeding in towns, in 1970s; wilderness breeding may persist, as elsewhere in Maritimes, but noted here in only 2 squares (Atlas), suggesting area (now?) marginal for species; BBS indices, nearby rtes -10.0%+ (9), Ecozone -9.5%* (56).

Ruby-throated Hummingbird *Archilocus colubris* [RtHu]

Fundy
Present Status: fairly common summer resident; (E, others) 27 May- 25 Sep 1998 (K Popma, in NB Nat); max 1+; (Atlas) in most squares, breeding confirmed nr Amherst; (Distribution) also nr Grande Anse, Sackville, Maccan.
History: (M) at Memramcook in 19 yr 1929-87, 20 May-3 Sep, max 2; (B) "Fairly common summer resident", arrivals 23-28 May; (E) 7 June-28 Aug, max 3; (Habitats) mostly around garden flowers or 'hummingbird-feeders', few detected in 'natural habitats'.

Strait
Present Status: fairly common summer resident; (E) 22 May-24 Aug, max 3+; (Atlas) in all squares, confirmed nr Northport, Beckwith; (Distribution) also noted nr Drisdelle, Murray Cor, Anns Acres, Upper Cape.

Changes: no evidence of status change; BBS indices, nearby rtes +0.3% (13), Ecozone -3.7% (60); prompt assembly at newly erected feeders suggests occurrence more general than detections show.

Belted Kingfisher *Ceryle alcyon* [BeKi]

Fundy
Present Status: fairly common summer resident; a few linger to CBCs (not known to winter); (E) arrival, earliest 24 Apr, mean 2 May (12 yr); max 4+; departure, mean 17 Sep (13 yr), latest 30 Sep; (Atlas, MNRS) in 11 squares, breeding confirmed nr Westcock; 1 nest reported, yg 27 Jun,

Brookdale (W McNutt); (Distribution) widespread nr shores, rivers, or lakes, e.g. Beaumont, Memramcook L, Grande Anse, Rampasture, Breau Crk (upper), Cookville, Jolicure, Chignecto NWA, Maccan R; (CBCs) Sackville 1989 (1), 1992 (2).

History: (M) at Memramcook in 26 yr 1931-76; arrival, earliest 16 Apr 1969, mean 30 Apr (16 yr); max 5; departure, mean 5 Oct (6 yr), latest 24 Oct 1971; (B) "Common summer resident", 4 Apr-1 Oct; (E) earliest 19 Apr, mean 27 Apr (4 yr), max 4; departure, mean 17 Sep (7 yr), latest 1 Oct.

Strait

Present Status: fairly common summer resident; a few linger into Dec; (E) arrival, earliest 12 Apr, mean 23 Apr (5 yr); max 3; departure, mean 17 Sep (12 yr), latest 2 Oct, straggler 11 Nov 2000 (1); (Atlas, MNRS) in 17 squares, confirmed in 5; 3 nests (all years), yg 1-30 Jul, Linden, Port Howe (I Finley, J Taylor); (Distribution) widely along shores, Shemogue to Bayfield to Baie Verte to Port Philip, few inland (most brooks there too small).

History: (E) 15 May-30 Sep, max 2; (Others) straggler 18 Dec 1961 (1), Cape Tormentine (M & M Majka, in Nat News); (CBCs) Cape Tormentine 1973 (1).

Changes: no obvious long-term status change; BBS indices, nearby rtes -0.2% (11), Ecozone -3% (65).

Yellow-bellied Sapsucker *Sphyrapicus varius* [YbSa]

Fundy

Present Status: uncommon (in habitat) summer resident; (E) 29 Apr-mid? Sep, singles; (Atlas, MNRS) in 10 squares, breeding confirmed in 4; nests, yg 30 Jun-4 Jul, nr Chignecto, Hastings (S Tingley, J Taylor); (Habitats, Distribution) in inland forests with 50+% broad-leafed trees (a few elsewhere in migration); nr Memramcook, Breau Crk (upper), Sackville, Aboushagan rd, Centre Vill, Brooklyn rd, Maccan R, Fenwick.

History: (M) nr Memramcook, only 3 sightings (one at feeder for wk in spring); (B) no reports; (E) 15 Apr-27 Sep (incl migrants in Sackville town), 6 May-5 Jul (in breeding habitat), max 3.

Strait

Present Status: uncommon/fairly common (in habitat) summer resident; (E) 24 Apr-(prob) Sep, singles; (Atlas, MNRS) in 16 squares, confirmed in 10; 3 nests (all years), yg 18 Jun-24 Jul, nr Cape Tormentine, Chapman Sett, Amherst Hd (J Taylor); (Distribution) also at Drisdelle, Anderson Sett, Melrose (S), Tidnish R, Amherst Shore Prov Park.

History: (E) 13 Jun 1967 (1) Tidnish R.

Changes: data too sparse to show convincing trends, as suitable habitats seldom visited except in Atlas years (may have decreased with later budworm decline?); BBS indices, nearby rtes -5.2%* (12), Ecozone -3.7%* (67).

Red-headed Woodpecker *Melanerpes erythrocephalus* [RhWo]

Fundy

Present Status: fall vagrant, some overwintering at feeders; (E, others) Westcock, CBC 1978 (T); Up Sackville 3 Nov 1979 (W Prescott, in NB Nat); Amherst 4 Apr to mid-May 1983 (had wintered); early Nov 1987-27 Mar 1988, Sackville; 22-26 May 1995, Sackville (present for 2 wk, M & A Armstrong, in NB Nat).

Strait

Present Status: rare fall vagrant: (Others) 5 Dec 1998-27 Mar 1999, Baie Verte (N Spence).

Notes: all records recent, likely reflecting more observers able to recognize species in winter plumage; spring record perhaps an overwintered bird, but in N.S. spring vagrants only one-third as frequent as fall sightings; species not known to breed in Maritimes (Atlas).

Red-bellied Woodpecker *Melanerpes carolinus* [RbWo]

Present Status: recent fall vagrant: (E, others) 18 Nov-29 Dec (incl CBC) 1987, 5 Nov 1992, 5 Dec 1994 (hd?), all nr Finneys' feeder, Sackville; 3-10 Nov 1990 (f), Amherst (CD, in NSB); St. Joseph Dec 1999-Apr 2000 (var obs, in NB Nat); [no earlier reports].

Notes: [not known to have over-wintered in N.B., where first reported 1980s, but vagrants to N.S. (first 1961-62) often wintered].

Downy Woodpecker *Picoides pubescens* [DoWo]

Fundy

Present Status: fairly common year-round resident; (E) in all months, most often May (drumming), least Sep, max 3; (Atlas, MNRS) in 15 squares, breeding confirmed in 4; 2 nests (all years), eggs 10-25 Jun, yg 30 Jun-25 Jul, W Amherst, Joggins (W McNutt, J Taylor); (Distribution) noted widely, e.g. Allen Crk to Sackville to Cookville to Amherst Pt MBS to R Hebert to Salem; (CBCs) Sackville all 20 yr (max 33, 1992); Amherst all 20 yr (max 32, 1998).

History: (M) at Memramcook in 32 yr 1928-80, noted all months, seldom in summer, max 3; (B) "Fairly common resident... in upland forest... and also in the towns and cultivated areas"; (E) all months, max 4; (CBCs) Sackville 15 yr (max 10, 3x); Amherst 15 yr (max 15, 1980).

Strait

Present Status: uncommon to fairly common year-round resident; (E) all months, max 3; (Atlas) in 17 squares, confirmed in 5; (Habitat, Distribution) seldom noted in woods near shores, mostly edges of settlements; e.g. Anns Acres, Cape Tormentine, Melrose, Port Elgin, Tidnish, Amherst Shore Prov Park; (CBCs) Cape Tormentine all 20 yr (max 20, 1997).

History: (E) only 5 records, singles; (CBCs) Cape Tormentine 14 yr (max 11, 1974).

Changes: no obvious status change; BBS indices, nearby rtes +2.5% (14), Ecozone -0.9% (72).

Hairy Woodpecker *Picoides villosus* [HaWo]

Fundy

Present Status: fairly common year-round resident; (E) all months, max 4; (Atlas, MNRS) in 12 squares, breeding confirmed nr Sackville; 2 nests, yg 1-10 Jun, Frosty Hollow, Breau Crk (upper)(E); (Distribution) noted widely, e.g. nr Dorchester, Rockport, Sackville, Aboushagan rd, Jolicure, Amherst Pt MBS, Maccan; (CBCs) Sackville 19 yr (max 19, 1985); Amherst 17 yr (max 21, 1999).

History: (M) at Memramcook in 35 yr 1928-80, noted all months except Jul, few Jun, Aug, max 4; (B) "Fairly common resident... most commonly in the upland forest"; (E) all months except Jun, max 2; (CBCs) Sackville 15 yr (max 10, 1979); Amherst 14 yr (max 9, 1980).

Strait

Present Status: uncommon to fairly common year-round resident; (E) most months, max 3; (Atlas) in 16 squares, confirmed in 5; (Habitats, Distribution) most in woods, not often nr shores; e.g. Square L to Stillman rd to Cape Tormentine to Melrose to Baie Verte to Amherst Shore Prov Park; (CBCs) Cape Tormentine 18 yr (max 12, 1999,2000).

History: (E) only 4 records, singles; (CBCs) Cape Tormentine 13 yr (max 11, 1978).

Changes: no obvious status changes; BBS indices, nearby rtes +4.3% (14), Ecozone +3.3%+ (69).

American Three-toed Woodpecker *Picoides dorsalis* [ATtW]*

Fundy

Present Status: fall vagrant, some remaining to winter; (M) 27 Oct 1937 (1), nr Memramcook; (E) 29 Oct 1978 (1), Cape Maringouin; (T) 30 Dec 1974-18 Apr 1975, max 4, nr Aulac, & 11 Nov-19 Dec 1978, max 2, Amherst Pt MBS (CD); (CBCs) Sackville 1971, 1995; Amherst 1986, 1987, 1997.

Strait

Present Status: fall vagrant; (Atlas) 7 Jun 1986 (f), Port Howe (J Taylor, in NSB); (CBCs) Cape Tormentine 1978.

Notes: our area is outside main range of species in N.B.; 1974 irruption was associated with local outbreak of bark beetles (T); *recently (2003) re-separated from Eurasian species.

Black-backed Woodpecker *Picoides arcticus* [BbWo]

Fundy

Present Status: probably sparse year-round resident and occasional fall/winter visitant; (E, others) noted in all months except Aug-Sep, most singles; 16 Feb 1986 (1), Athol (F Lavender, in NSB); (Atlas) in 3 squares (sightings only); (Distribution) also at Calhoun, Memramcook, Sackville, Aboushagan rd, Midgic, Jolicure, Pt de Bute, Aulac, Ft Lawrence, Amherst Pt MBS; (CBCs) Sackville 7 yr (max 3), Amherst 1987, 1989, 1996 (singles).

History: irruption fall/winter 1974-75 (see also TtWo) brought max 6 to Aulac and max 9 to Amherst Pt MBS; nr Aulac 23,28 Dec 1975 (1) (T Goward, in NSBSN); Nov 1979-Feb 1980, 14 Jun 1980 (f), Amherst Pt MBS; (CBCs) Sackville 7 yr (max 7, 1980), Amherst 1974 (6), 1978 (1), 1979 (3).

Strait

Present Status: probably sparse year-round resident; (Others) 2 Mar 1980 (1), Amherst Head (CD, in NSBSN); (Atlas) confirmed breeding nr Baie Verte and Linden (1986); (CBCs) Cape Tormentine 1986, 1991, 1996 (singles).

History: (CBCs) Cape Tormentine 1980 (1).

Notes: 1974 irruption associated with local outbreak of bark beetles (T).

Changes: data too sparse to show patterns.

Northern Flicker *Colaptes auratus* [NoFl]

Fundy

Present Status: common summer resident; some linger and a few overwinter, in some years; (E) arrival, earliest 8 Apr, mean 21 Apr (20 yr); departure, mean 17 Sep (15 yr), latest (except outliers) 11 Oct; one wintered at Sackville 1995, and several 1997-98, 20 Dec-27 Mar; (Atlas, MNRS) in all squares, confirmed in most; 15 nests (all years), eggs 26 May-1 Jul, yg 12 Jun-25 Jul (var obs); (Distribution) noted widely, e.g. Memramcook to Rockport to Sackville to Cookville to Jolicure to Maccan R to Fenwick; (CBCs) Sackville 7 yr (max 9, 2000); Amherst 9 yr (max 3, 1988).

History: (M) nr Memramcook in 38 yr 1930-79; arrival, earliest (a few earlier - had wintered?) 6 Apr, mean 23 Apr (28 yr); max 8; departure, mean 25 Sep (11 yr), latest 14 Oct; (B) "Fairly common summer resident", 4 Apr-30 Oct; (E) arrival, earliest 7 Apr, mean 21 Apr (8 yr); max 15; departure, mean 21 Sep (11 yr), latest 11 Oct; (CBCs) Sackville 1978; Amherst 1974, 1975; all singles.

Strait

Present Status: common summer resident; (E) 17 Apr-27 Sep (also a few outliers), max 7; (Atlas, MNRS) in all squares, mostly confirmed; 4 nests (all years), eggs 28 Jun, yg 30 May-30 Jul (A Smith, W McNutt, J Taylor); (Distribution) noted widely, e.g. Anderson Sett to Murray Cor to Cape Jourimain NWA to Cape Spear to Port Elgin to Amherst Shore Prov Park to Port Howe; (CBCs) Cape Tormentine 13 yr (max 9, 2000).

History: (E) 26 Apr-27 Sep, max 7; & 1966 CBC; (CBCs) Cape Tormentine 4 yr (singles).

Notes: Arrival of European Starlings (competitor for nest-sites) at start of period (1930s) had no detected effect on NoFl numbers.

Changes: no obvious trends except wintering more frequent in 1990s; BBS indices, nearby rtes -3.0%* (14), Ecozone +0.8% (88).

Pileated Woodpecker *Dryocopus pileatus* [PiWo]

Fundy

Present Status: fairly common (in habitat) year-round resident; (E) in Mar-Sep, Dec, most hd after 1984 (drumming or calls earlier were not always recorded - as ID not certain); (Atlas, MNRS) in most largely forested squares, breeding confirmed only in 3; active nests nr Fenwick (R Calkins) and W Linden (J Taylor); (Habitats, Distribution) seen/hd mainly in extensive forests with large trees; nr Beaumont, Calhoun, Memramcook East, Woodhurst, Frosty Hollow, Westcock, Breau Crk (upper), Beech Hill, Maccan R, R Hebert (S), Little Forks; (CBCs) Sackville 14 yr (max 3, 6 yr); Amherst 14 yr (max 13, 1998); mostly since 1990.

History: (M) in 6 yr 1941-72, Jan, Feb, May, Oct, Dec, most in seldom-visited forest areas, nr Beaumont, Calhoun, Memramcook E, Beech Hill; (B) no records (in his limited area); (E) no certain records (some calls or drumming thought probable but not claimed); CBCs) Sackville 3 yr (singles); Amherst 3 yr, max 4 (1979).

Strait

Present Status: scarce year-round resident (in habitat); (E) in Apr, Jun, Sep, Dec, most hd, max 2; (Atlas) in 11 squares, confirmed nr Northport; (Distribution) nr Drisdelle, Murray Road, nr Oulton rd, Tidnish R (upper), Shinimicas; (CBCs) Cape Tormentine 9 yr (max 4, 1997), most since 1990.

History: (CBCs) Cape Tormentine 1962, 1971, 1974 (singles).

Changes: apparent increase partly from wider coverage latterly; excavations also noted more often in later years, but sight/sound records too sparse to provide convincing trends; BBS indices, nearby rtes +12.8% (10), Ecozone +6.3% (39).

Olive-sided Flycatcher *Contopus cooperi* [OsFl]

Fundy

Present Status: uncommon summer resident; (E) arrival, earliest 21 May, mean 27 May (6 yr), most singles; latest noted (calls), 16 Aug 1986; (Atlas) mainly inland, breeding confirmed only nr Cookville; (Distribution) widely but sparsely, e.g. Dorchester, Rockport, Frosty Hollow, Breau Crk (upper), Aboushagan rd, Cookville, Jolicure, Amherst Pt MBS.

History: (M) never noted it anywhere (surprising!); (B) "Fairly common", 5 Jun-2 Aug; (E) 12 Jun-17 Jul (little time in forests in season then), max 3.

Strait

Present Status: uncommon summer resident; (E) 3 Jun-16 Aug, mostly singles; (Atlas) in 12 of 23 squares, few nr coast, breeding confirmed nr Drisdelle and Chapman Sett; (Distribution) also nr Kinnear R (upper), Cape Jourimain, Melrose (S), Cobourg rd, Tidnish R (upper).

History: (E) 12 Jun 1969 (2+); Changes: earlier data too sparse for convincing trends, seemed scarcer recently than in 1980s (Atlas increased field work in woods); BBS indices, nearby rtes -6.6%* (14), Ecozone -4.2% (68).

Eastern Wood-Pewee *Contopus virens* [EaWP]

Fundy

Present Status: fairly common summer resident (in habitat); (E) arrival, earliest 30 May, mean 7 June (11 yr); max 3; departure, mean 2 Sep (9 yr), latest (song) 12 Sep; (Atlas) in nrly all squares, breeding confirmed nr Dorchester and Fenwick; (Habitat, Distribution) mostly in semi-open areas of tall broad-leafed trees, in settlements and forests, away from coasts; widely but sparsely, Beaumont to Centre Vill, Sackville and Amherst Pt MBS to Lit Forks.

History: (M) nr Memramcook in 16 yr 1931-73, arrival, earliest 21 May, mean 4 Jun (10 yr), max 3, last noted 31 Aug; (B) "Rare summer resident", 24 May-1 Sep; (E) arrival, earliest 24 May, mean 8 Jun (6 yr), max 5, last hd, mean 28 Aug (8 yr), latest (seen) 3 Sep.

Strait

Present Status: uncommon summer resident; (E) 3 Jun-10 Aug, max 2; (Atlas) in all squares, breeding confirmed in 4 (all in N.S.); (Distribution) nr Poucette L, Square L, Duguay Pt, Murray Cor, Melrose (S), Malden, Tidnish R (upper), Amherst Shore Prov Pk.

History: (E) 12 Jun 1969 (2+); (MNRS) nest, yg 19 Aug, off Coburg rd (G Johnstone).

Changes: found more often in 1980s (Atlas) than earlier or later, but no greater numbers, no obvious change; BBS indices, nearby rtes +0.4% (14), Ecozone -3.1% (73).

Yellow-bellied Flycatcher *Empidonax flaviventris* [YbFl]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 16 May, mean 30 May (14 yr); max 7; latest (calls) in summer 30 Jul; (Atlas, MNRS) most Atlas records in NB area, but 2 nests at Amherst Pt MBS, Fenwick (W McNutt), eggs 5-12 Jul, yg 15-28 Jul; (Distribution) widely but sparsely, e.g. Dorchester, Cape Maringouin, Frosty Hollow, Breau Crk (upper), Aboushagan rd, Brooklyn rd, R Hebert (E), Little Forks; few reported in N.S. during Atlas.

History: (M) nr Memramcook, only 4 records 1932-80; (B) "Rare"; [both McManus and Boyer had records later than recent latest (vocal) dates - perhaps they did not recognize its calls, and knew it by sight only?]; (E) 31 May-6 Aug, max 2.

Strait

Present Status: fairly common summer resident; (E) 3 Jun-7 Aug; max 5; (Atlas) records mostly in NB area; (Distribution) at Drisdelle, Poucette L, Anderson Sett, Malden, Oulton rd, Tyndal rd.

History: (E) no records (little time spent in woods then).

Notes: under-detected by most observers, but 110 banded at Tintamarre NWA 1972-78 (T) shows it less uncommon than suggested by sparse data; [Peterson field guides (still) note 'killic' calls as if rare; these (perhaps confused with LeFl) are much more frequent here than 'chu-wee' calls, which may cause ID difficulties?].

Changes: more records recently, but little field time earlier in suitable habitat, when no voice ID (?) by M and B, thus not conclusive evidence of change; BBS indices, nearby rtes -0.8% (14), Ecozone +2.6% (62).

Alder Flycatcher *Empidonax alnorum* [AlFl]

Fundy

Present Status: very common summer resident; (E) arrival, earliest 24 May, mean 29 May (16 yr); max 26+; latest (vocal) in summer 7 Aug; (Atlas, MNRS) in all squares, breeding confirmed in 8; nest, eggs 21-25 Jun, Dorchester Cape (D Amirault); (Distribution) very widely, e.g. Memramcook E, Rockport, Sackville, Cookville, Jolicure, Maccan, R Hebert, Salem.

History: (M) nr Memramcook in (only) 20 yr 1932-80, arrival, earliest 15 May, mean 31 May (11 yr), departure, mean 21 Aug (11 yr), latest 2 Sep; his max 5 suggested few ID were by song; (B) "Fairly common summer resident", 29 May to mid-Sep; (E) arrival, earliest 23 May, mean 1 Jun (5 yr); max 23; last noted 23 Aug.

Strait

Present Status: very common summer resident; (E) 29 May-9 Aug; max 12; (Atlas, MNRS) in all squares, confirmed in 9; nest, yg 24 July, Chapman Sett (J Taylor); (Distribution) widely, Drisdelle to Cape Tormentine to Port Elgin and Tidnish R.

History: (E) 10-14 Jun, max 7.

Notes: [listed as 'Traill's Flycatcher' (then incl WiFl) until 1973; here, assumed all earlier records were AlFl].

Changes: no evidence of change; BBS indices, nearby rtes +0.6% (14), Ecozone +1.6%* (89).

Willow Flycatcher *Empidonax traillii* [WiFl]

Fundy

Present Status: summer vagrant/visitant, 4 recent records (probably under-detected); birds seen and hd 2-5 Jun 1989, Sackville (D Busby); 12 Jul 1997 and 13 Jun 1998, White Birch rd (E).

History: (M) 'a flycatcher' was noted giving "fitz-bew" call at Memramcook 7 Jun 1963 [long before species accepted by A.O.U.]; McManus perhaps realized significance of that call from literature? (E) Erskine knew its calls from B.C. (1958-59), but never heard it in Maritimes until 1995 (in N.S.).

Strait

Present Status: summer vagrant/visitant; 11 Jun 1994, Cape Jourimain NWA (C Colpitts, in NB Nat).

Notes: [species was distinguished from AlFl ca. 1962, after long debate, but not officially recognized by A.O.U. until 1973]; now breeding regularly but sparsely in sw N.B., likely not (yet?) in our area.

Least Flycatcher *Empidonax minimus* [LeFl]

Fundy

Present Status: uncommon local summer resident; (E) arrival, earliest 21 May, mean 24 May (10 yr); max 5; latest (song) in summer 10 Jul; (Atlas, MNRS) in 7 squares, breeding confirmed in 1; nest at Amherst Pt MBS (W McNutt), eggs 25 Jun, yg 3-15 Jul; (Habitat, Distribution) largely restricted to pure broad-leafed stands, here usually of aspens; at Fairfield, Breau Crk (upper), Aboushagan rd, Sackville, Maccan, R Hebert.

History: (M) nr Memramcook, noted in only 7 yr 1929-73, [28 Apr 1929 likely an error on date or ID]; 18 May-8 Sep, max 3; (B) "Rare", 29 May-1 Sep; (E) 18 May-5 Jul, all singles.

Strait

Present Status: fairly common but local summer resident, 18 May-16 Jul, max 7; (Atlas) in 20 Atlas squares, breeding confirmed in 9; (Distribution) noted at Poucette L, Square L, Murray Bch, Bayfield (S), Oulton rd, Baie Verte, Tidnish R, Amherst Shore Prov Park.

History: (E) not found (little time in woods then).

Notes: [despite confusion of one call of YbFl with this species, no suggestion of this being over-represented].

Changes: noted more often recently - since increase of broad-leafed cover after budworm kill opened up conifer stands, thus possible increase; BBS indices, nearby rtes -0.1% (12), Ecozone - 0.5% (88).

Eastern Phoebe *Sayornis phoebe* [EaPh]

Fundy

Present Status: irregular spring vagrant, not known to breed (Atlas); only recent records, Sackville 15-22 Apr 2000 (2+; 3 obs independently).

History: (M) nr Memramcook, 5 records 1949-73, 19 Apr-5 Jun; (B) at Fairfield rd and Sackville 11-29 Apr 1948 (2+); (E) none found (then); (T) at Aulac, Amherst, Amherst Pt MBS 1972-74, Apr-May (var obs), and 9 Aug 1979 (J McLaren).

Strait

Present Status: [no records nr Strait].

Changes: data too sparse for trend.

Great Crested Flycatcher *Myiarchus crinitus* [GCFl]

Fundy

Present Status: scarce spring visitant, 5+ records 1981-95; (E) 29 May-17 Jun, singles; (Distribution) at Fairfield, Westcock, Sackville; only 1 local sighting in Atlas (spring records then omitted as not breeding?).

History: species not noted earlier by (M),(B),(E); (T) 2 unusual records (same bird?) Sackville, 30 Aug 1972 (H Ouellet), 2-3 Dec 1972 (fd dead, H Harries).

Strait

Present Status: [no reports nr Strait].

Notes: [breeds sparsely in N.B., sporadically in N.S.]; records in our area all likely strays from spring (and fall?) migration.

Changes: data too sparse for trends.

Western Kingbird *Tyrannus verticalis* [WeKi]

Fundy

Present Status: scarce fall vagrant, one recent record 28 Oct 1990 (1), Sackville (L and R Calkins, in NB Nat).

History: 1 earlier record, 24 Oct 1951, Midgic (B).

Strait

Present Status: [no recent sightings nr Strait].

History: 1 earlier record, 24 Nov 1979, Northport (in NSBSN).

Notes: [termed 'very rare' in N.B., and 'uncommon' but annual in N.S.; strays to Maritimes mainly in fall].

Changes: data too sparse for trends.

Eastern Kingbird *Tyrannus tyrannus* [EaKi]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 16 May, mean 27 May (10 yr); max 5; departure, mean 19 Aug (5 yr), latest 28 Aug; (Atlas, MNRS) in most squares, breeding confirmed in 4; 5 nests (all years), eggs 12 Jun-5 Jul, yg 15-28 Jul, nr Jolicure, Amherst Pt, Maccan (A Smith, W McNutt, K McAloney); (Distribution) widely, e.g. Memramcook to Sackville to Jolicure to Lr Maccan to Fenwick; most recent reports at Sackville in w-f park.

History: (M) nr Memramcook 26 yr 1929-73, arrival, earliest 14 May, mean 19 May (14 yr); max 5; departure, mean 25 Aug (12 yr), latest 5 Sep; (B) "Fairly common summer resident", 10 May-5 Sep, mainly in orchards; (E) 24 May-5 Sep, max 3.

Strait

Present Status: uncommon summer resident; (E) 10 Jun-1 Sep; max 2; (Atlas, MNRS) in most squares, confirmed breeding in 10; 8 nests (all years), eggs 13-27 June, yg 7 Jul-14 Aug, nr Chapman Brk, Tidnish, Chapman Sett, Leicester, Northport, Linden, Beckwith, Conn Mills (I Finley, E Hickey, J Taylor); (Distribution) also noted at Murray Cor, Cape Jourimain NWA, Bayfield.

History: (E) 26 May-8 Aug, max 6.

Changes: no clear trends in frequency or numbers; formerly present a week earlier and later, respectively, than recently, may imply decline; BBS indices, nearby rtes -3.2% (14), Ecozone -2.4% (65).

Loggerhead Shrike *Lanius ludovicianus* [LoSh]

Fundy

Present Status: uncertain, likely 'extirpated' [likely no more than vagrant earlier?]; no recent reports.

History: (M) only report, 15 Mar 1973 (1), Memramcook L, was plausible, but his description also fitted NShr (which would be more expectable at that date); (B) 'daily' May 1952 (pr), Up Sackville (G Boyer and C Robbins), 'for a few days' late Apr 1954 and 1955 (singing), Westcock; (E) none identified (here); (T, others) 25 Apr 1957 (1), Amherst Pt MBS (C Bartlett, in B); 16 May 1971 (1), Linden (I Finley, in NSBSN); 7 July 1974 (1), Amherst, and 15 Sep 1974 (1), Amherst Pt MBS (CD); repeatedly summer 1980, Upper Sackville (B Johnstone, W Prescott), Jolicure (R Simmons); (CBCs) Sackville 1974 (1).

Strait

Present Status: uncertain, likely 'extirpated' [likely no more than vagrant earlier?]; no recent reports.

History: only records were on Cape Tormentine CBCs (1972, 1975, singles).

Notes: never common in Maritimes, last known breeding 1972 (NB, only NS breeding 1969) now extirpated as a breeding bird (Atlas); some records perhaps were incorrect ID (vs. NShr, esp. CBCs), but so many different observers involved suggested this species occurred here occasionally.

Northern Shrike *Lanius excubitor* [NShr]

Fundy

Present Status: uncommon transient and winter visitant; (E, others) 21 Oct 1985 (ST, in NB Nat) - 23 Mar, max 2; (Distribution) nr Memramcook, Sackville, Cookville, Goose L rd, Highmarsh rd, Pt de Bute, Ft Beausejour; (CBCs) Sackville 18 yr (max 6, 3x), Amherst 16 yr (max 9, 1990).

History: (M) nr Memramcook in 17 winters 1933-77, fall arrival, earliest 21 Oct, mean 7 Nov (6 yr), max 2; spring departure, mean 7 Apr (8 yr), latest 29 Apr, straggler 16 May 1969; (B) "Very rare winter resident; rare transient", 25 Nov-9 Apr; (E) 29 Mar 1966, Up Dorchester; (T) "Rare uncommon transient and winter visitant... most years several are present... Most... during migration in November and from mid-March to mid-April"; (CBCs) Sackville 9 yr (max 5, 1978), Amherst 5 yr (max 5, 1978).

Strait

Present Status: uncommon transient and winter visitant; (E) 18 Nov-22 Apr, all singles; (Distribution) nr Bayfield, Cape Tormentine, Baie Verte, Linden, Port Philip; (CBCs) Cape Tormentine 17 yr (max 9, 2x).

History: (E) 23 Mar 1966, Cadman Cor; (CBCs) Cape Tormentine 12 yr (max 8, 1978).

Changes: no obvious status change, data sparse in all data-sets.

Blue-headed Vireo (was Solitary Vireo) *Vireo solitarius* [BhVi]

Fundy

Present Status: fairly common summer resident; (E) arrivals, earliest 6 May, mean 13 May (15 yr), max 7; latest 21 Sep; (Atlas, MNRS) in all squares, confirmed breeding in 5; 4 nests (all years), eggs 5-12 Jun, yg 20 Jun, Dorchester Cape, Walker rd (D Kimball), Fenwick (NSBS); (Distribution) widely, Memramcook E to Cape Maringouin to Minudie to Fenwick to Midgic.

History: (M) nr Memramcook, in only 7 yr 1931-80, 13 May-13 Sep, max 4+ [song not distinguished (from ReVi) until 1980?]; (B) "Uncommon summer resident", 4 locations, earliest 21 May; (E) 4 May-26 Sep, max 6; (Others) latest, 8 and 23 Oct 1973 (1) (CD, in NSBSN).

Strait

Present Status: fairly common summer resident; (E) 9 May-31 Jul, max 5; (Atlas, MNRS) in nrly all squares, confirmed in 3; nest, yg 11 Jul, Port Howe (J Taylor); (Distribution, Habitat) widely, Drisdelle to Bayfield to Cobourg rd to Amherst Shore Prov Park, mostly in mixed woods away from coasts.

History: (E) 10-14 Jun, max 3, Tidnish R (few visits to suitable habitat in season then).

Changes: possible increase, or more observations in suitable habitat [perhaps not IDd earlier, by M & B?]; BBS indices, nearby rtes +2.3% (13), Ecozone +3.2%* (72).

Yellow-throated Vireo *Vireo flaviventris* [YtVi]

Fundy

Present Status: vagrant - one report, early Nov (2 days) 1979, Sackville (R Howe, per ST, in NB Nat).

Notes: [Species strayed to N.B. and N.S. irregularly May-Oct, since 1942]; local record seems plausible, though exceptional in date.

Warbling Vireo *Vireo gilvus* [WaVi]

Fundy

Present Status: scarce summer visitant, 5 recent records; (E) 18 and 26 May 1999 (singles, hd), Sackville; (Others) 7 Jul 1984, Athol (F Lavender, in NSB); 18-19 Jul 1984, Mid Sackville (ST et al); 13 Jun 1990, Sackville (C Ellingwood, P Pearce); 18 Jun 2000 (3+), Amherst (in NSB).

History: (M) 5 Jun 1963, Memramcook; (T) trapped and banded 23 Jun 1977, Jolicure.

Strait

Present Status: 20 May 1984, Port Howe (J Taylor, in NSB).

Note: most N.B. reports before Atlas were from urban areas.

Changes: too few records to show trends [but reported several yr in Moncton (20 km NW of area; NBNat)].

Philadelphia Vireo *Vireo philadelphicus* [PhVi]

Fundy

Present Status: scarce summer vagrant, one recent record 27 May 1984, Amherst Pt MBS (D Currie, in NSB).

History: (M) nr Memramcook 2 Jun 1972, 5 Jun 1973; (Others) Amherst 17 Aug 1972, 11 Jun 1973 (CD).

Strait

Present Status: [no records nr Strait].

Notes: from Atlas, our area lies outside sparse peripheral breeding area (NW from Moncton), and distant 150 km from main range in northern N.B.

Changes: too few reports to suggest trends.

Red-eyed Vireo *Vireo olivaceus* [ReVi]

Fundy

Present Status: common summer resident; (E, others) arrivals, earliest 13 May 2000 (J Ogden, in NSB); mean 27 May (17 yr), max 25; departure, mean 2 Sep (15 yr), latest 14 Sep; (Atlas, MNRS) in all squares, breeding confirmed in 5; 2 nests (all years), eggs 21-28 Jun, yg 28 Jun, 22 Aug, Sackville (J Barnhill, D Hoare); (Habitats) very widely, in broad-leafed or mixed woods, scattered trees on roadsides, in towns, etc.

History: (M) nr Memramcook in 21 yr 1931-80, arrivals, earliest 18 May, mean 24 May (5 yr), max 3; latest 9 Sep [low numbers and few years noted suggest ID mainly or only by sight?]; (B) "Common summer resident", 29 May-14 Oct [latter very late]; noted widely, nest - eggs 29 Jun 1954; (E) arrivals, earliest 27 May, mean 1 June (5 yr), max 16; latest (hd) 17 Sep.

Strait

Present Status: common summer resident; (E) 29 May-9 Sep; max 24; (Atlas) in all Atlas squares, confirmed in 9; (Habitats, Distribution) very widely in most treed habitats (except solid conifers), Drisdelle and Poucette L to Cape Jourimain NWA and Cape Spear, Cobourg rd to Amherst Shore Prov Park.

History: (E) 10 Jun-26 Jul, max 3 (little time spent in wooded areas then).

Changes: no evidence of status change; BBS indices, nearby rtes +3.1%* (14), Ecozone +1.9%* (88).

Canada Jay (Gray Jay) *Perisoreus canadensis* [GraJ]

Fundy

Present Status: uncommon year-round resident; (E) all months except Apr, most Jun-Sep, max 5 (family); (Atlas) in 13 squares, breeding confirmed in 8; (Distribution) in conifer/mixed woods, nr Dorchester, Cape Maringouin, Breau Crk (upper), Cookville, Jolicure, Amherst Pt MBS (1980-81, CD, in NSB), Little Forks; (CBCs) Sackville 18 yr (max 20, 1995, 2000); Amherst 18 yr (max 26, 1989).

History: (M) nr Memramcook in 25 yr 1930-78, noted all months except Jun, most Oct-Dec, max 6+; (B) "Uncommon resident", in woods; (E) all months except Jan, max 4; (CBCs) Sackville 18 yr (max 13, 1974); Amherst 12 yr (max 19, 1979).

Strait

Present Status: uncommon year-round resident; (E) seen Jun-Oct, Dec (little field-time in suitable habitats winter and spring), max 5 (family); (Atlas, MNRS) confirmed in most Atlas squares; nest, yg 2 Jul, Northport (J Taylor); (Distribution): nr Drisdelle, Spence, Bayfield, Malden, Cobourg rd, Tidnish R, Amherst Shore Prov Park; (CBCs) Cape Tormentine 16 yr (max 19, 1991).

History: (E) few singles nr Strait (little time spent in woods then), Mar, May, Oct-Dec. (CBCs) Cape Tormentine 13 yr (max 17, 1973).

Changes: no evidence of changed status; BBS indices, nearby rtes -2.5% (11), Ecozone +0.5% (51).

Blue Jay *Cyanocitta cristata* [BlJa]

Fundy

Present Status: fairly common year-round resident, occasionally most leave in winter (e.g. none Jan-Mar 1988-91); (E) regular in all months most years, max 13; (Atlas, MNRS) in all squares, breeding confirmed in 6; 2 nests (all years), yg 4 Jun-10 Jul, W Amherst (W McNutt); (Distribution) widely (except Jun-Jul), e.g. nr Beaumont, Fairfield, Sackville, Cookville, Jolicure, Amherst Pt MBS, R Hebert; (CBCs) Sackville all 20 yr (max 185, 2000), Amherst all 20 yr (max 356, 1989) [CBCs showed up to 10x variation between successive years, though species found in all winters].

History: fairly common year-round resident, occasionally most left in winter; (M) nr Memramcook, before 1964 noted irregularly [perhaps species seen so often not all sightings were entered?]; his (complete?) data for 1965-75 matched recent frequency and numbers; (B) "Uncommon resident and irregularly common transient", few in winter at Westcock but spring flocks up to 54 (15 May 1950); (E) all months except Jul; max 19; none noted Jan-May 1965, when most seemingly migrated south, otherwise regularly in all months; (CBCs) Sackville all 21 yr (max 216, 1979), Amherst 19 yr (max 120, 1979).

Strait

Present Status: fairly common year-round resident; (E) all months except Jan-Feb (when few visits there), max 10; (Others) major migratory (?) movement 29 Sep 1991 (300+), Baie Verte, Tidnish (B Maybank and J Taylor, in NSB); (Atlas) in most Atlas squares, confirmed in 10; (Distribution) widely, e.g. Murray Cor to Bayfield to Cape Spear to Baie Verte to Shinimicas to Linden; (CBCs) Cape Tormentine all 20 yr (max 152, 1986).

History: uncommon year-round resident, more frequent in fall (migrating?); (E) Jan, May-Jun, Sep-Dec (seldom in area), max 16; seen infrequently but widely, Chapman Cor to Bayfield to Linden; (CBCs) Cape Tormentine 19 yr (max 117, 1979).

Changes: no obvious change in status; BBS indices, nearby rtes -1.1% (14), Ecozone -0.2% (85).

American Crow *Corvus brachyrhynchus* [AmCr]

Fundy

Present Status: abundant year-round resident; (E) regularly all months; max (Mar-Apr) 120, (May-Jul) 55, (Aug-Oct) 120, (Nov-Feb) 45; (Atlas, MNRS) in all squares, breeding confirmed in nrly all; 3 nests (all years), yg 10-18 Jun (E; W McNutt, E Lowerison); (Distribution, Habitats) very widely except in continuous large tracts of conifer or mixed forest, increasingly in urban areas; (CBCs) Sackville all 20 yr (max 439, 1999); Amherst all 20 yr (max 634, 2000).

History: (M) nr Memramcook 1928-88, arrival, earliest 2 Mar, mean 11 Mar (30 yr); max (Mar-Apr) 150, (May-Jul) 60, (Aug-Oct) 679, (Nov-Feb) 200; most high counts were of flights to or from roosts, only a few (incl highest) probably migrating; (B) "Common summer resident, uncommon during winter", migrant flocks 10 Mar-4 May, max 55, 2 Oct-11 Nov, max 50; (E) impression of returning flocks in Mar, but no pattern in counts; max (Mar-Apr) 100+, (May-Jul) 21, (Aug-Oct) 100, (Nov-Feb) 98, most large counts were of flights to or from roosts; (CBCs) Sackville all 21 yr (max 118, 1980), Amherst 18 yr (max 378, 1972).

Strait

Present Status: common year-round resident; (E) regularly all months; max (Mar-Apr) 100, (May-Jul) 12, (Aug-Oct) 44+, (Nov-Feb) 30; (Atlas, MNRS) in all squares, confirmed in nrly all; 9 nests (all years), eggs 22 May, yg 23 May-25 Aug (W McNutt, W. Barrow, J Taylor, J Wile); (Distribution) very widely in all habitats except closed forests; (CBCs) Cape Tormentine all 20 yr (max 292, 1999).

History: (E), most months, max (Mar-Apr) 50+, (May-Jul) 9, (Aug-Oct) 5, (Nov-Feb) 50; (CBCs) Cape Tormentine all 20 yr (max 147, 1972).

Changes: probably still increasing; until 1970s, half (or more) of population left area in winter, no suggestion of this now; BBS indices, nearby rtes +2.2%* (14), Ecozone +1.1%* (91).

Common Raven *Corvus corax* [CoRa]

Fundy

Present Status: fairly common year-round resident; (E) all months, few (one-day) max >6 - mainly at dumps; (Atlas, MNRS) in all squares, with breeding confirmed in most; nests in trees (7), barns on msh (5), sea-cliffs (3), eggs 1 Apr, yg 30 Apr-7 Jun (var obs); (Habitats, Distribution) very widely, more predictable in wooded than open areas, except nr coasts; (CBCs) Sackville all 20 yr (max 189, 1990), Amherst all 20 yr (max 247, 1991).

History: (M) not identified (vs. Crows) before 1931; very few noted in 1930s, when widely distributed in Maritimes (Squires 1952, Tufts 1962); perhaps those wary birds then retreated from settled areas - where shot routinely before 1970; (pre-roost?) flight of 46 in late p.m. NW of Sackville (CBC 1969); (B) "Fairly common" and ubiquitous; (E) all months (when in area), max 12 (except to 65 at dumps in winter); (Others) 22 Nov 1975 (100), Amherst Pt MBS (CD, in NSBSN), might be pre-roost concentration; (CBCs) Sackville all 21 yr (max 218, 1972), Amherst 18 yr (max 154, 1970).]

Strait

Present Status: (fairly?) common year-round resident; (E) all months, max 8; (Atlas, MNRS) in all squares, confirmed in most; 4 nests, all in trees, yg 30 Apr-10 Jun (var obs); noted very widely; (CBCs) Cape Tormentine all 20 yr (max 188, 1991).

History: (E) all months (except Feb, no visits), max 11 (except at/nr winter roosts); 90-110 Ravens roosted in small woodlot E of Murray Cor (CBCs 1961-63) until house was moved onto adjoining lot; (CBCs) Cape Tormentine all 20 yr (max 122, 1979).

Notes: increased overall, but no obvious change since 1950; [Squires' (1976) suggestion of increase since 1950 from more road-kills (potential food) was not supported by our data]; BBS indices, nearby rtes +1.3% (14), Ecozone +2.6% (87).

Horned Lark *Eremophila alpestris* [HoLa]

Fundy

Present Status: uncommon migrant, former local breeder (probably gone after 1984); (E, others) 19 Mar-24 Dec, only recent sightings >12 birds 24 Mar 1989 (40, W Amherst; E), 17 Dec 2000 (29, Tantramar msh; R Miller and K Popma, in NB Nat); (Atlas) only one sighting (Mid Sackville) during Atlas; (Distribution) nr Westcock (incl summers 1981-84), Sackville, Up Sackville, Pt de Bute, Ft Lawrence, W Amherst (incl summer 1982, ST, in NSB), Fenwick; (CBCs) Sackville 11 yr (max 112, 2000, none 1988-95), Amherst 16 yr (max 154, 1984).

History: (M) one-day counts 50-200 in migration many years 1932-70, but May-Jun max then only 5 birds; (B) "Fairly common at all seasons"; (E) spring arrival, earliest 23 Feb, mean 15 Mar (10 yr), max (migration) 45, (summer) 10; also noted late Oct-late Dec (5 yr); (Others) nest (no details) nr Ft Beausejour Apr 1960 (D Rebuck); in snowy spring 1972, 8-15 Apr (1000s), 23 Apr (100s), nr Nappan, also 27 Mar 1977 (200), Amherst Pt (all in NSBSN); (CBCs) Sackville 15 yr (max 50, 1976), Amherst 6 yr (max 82, 1979).

Strait

Present Status: scarce migrant; (E) 9 Apr 1982, Lr Shinimicas; (CBCs) Cape Tormentine 7 yr (max 13, 1985).

History: (CBCs) Cape Tormentine 11 yr (max 25, 1975).

Changes: formerly common migrant and uncommon summer resident, substantial declines since 1970, no recent breeding; BBS indices, nearby rtes -18.7%* (7), Ecozone -8.2% (24).

Purple Martin *Progne subis* [PuMa]

Fundy

Present Status: uncommon local summer resident; (E, others) arrival, earliest 29 Apr 1984 (CD, in NSB), mean 12 May (7 yr); departure, mean 19 Aug (10 yr), latest 31 Aug; (MNRS, Others) colonies (max pr and yr) active in Sackville (6 pr, 1992; 170+ post-fledging 1993 [incl birds from Amherst or Oxford?]; E), Amherst (5 colonies, ~100+ pr, 1970s; 300+ post-fledging 1983; 67+ nests active 1987), still active 30 May 1999 (20+) (CD, E Coates, J Ogden, in NSB), most sightings at or nr colonies; estimates varied greatly between years.

History: (M) colony at St. Joseph (early 1930s) perhaps persisted later - as adults noted at Memramcook in June several yrs 1948-68; (Others) at Amherst, arrivals 1964-72, earliest 29 Apr, mean 3 May (4 yr), departures 1964-75, mean 23 Aug (3 yr) (E Lowerison Coates, in NSBSN).

Strait

Present Status: [no colonies known nr Strait in region - nearest Pt-du-Chene].

Notes: numbers fluctuated erratically, partly with 'owners" efforts in cleaning boxes and deterring competitors; colonies sometimes deserted after cold springs - Sackville had no nesting PuMa 1951-69, 1972-81, 1998-2003; Amherst colonies occupied new boxes, or moved to other sites.

Tree Swallow *Tachycineta bicolor* [TreS]

Fundy

Present Status: locally common summer resident and spring transient, no fall staging noted recently; (E, others) arrival, earliest 11 Apr 2000, mean 25 Apr (21 yr); max (Apr-May) 80+, [exceptional 12 May 1983 (2500+), 24 Apr 1993 (800+), Amherst Pt MBS (B Dalzell, B Maybank, in NSB)]; (Jun-Jul) 100 (23 Jun 1984; next 25+); departure, most leave right after fledging in 2nd wk Jul, stragglers into Aug 7 yr (mean 11 Aug, latest 20th); (Atlas, MNRS) breeding confirmed in all squares; 82 nests (all years), eggs 20 May-14 Jul, yg 12 Jun-5 Aug (var obs); (Habitats, Distribution) very widely, especially around open and wetland areas;

History: (M) nr Memramcook in 31 yr 1929-80, arrival, earliest 12 Apr 1968, mean 27 Apr (27 yr), max (Apr-May) 2500 (22 May 1967, a cold spring; next 500+ in 1973), (Jun-Jul) 200 (Jul 1967, next 40), departure, probably most in July, stragglers in 9 yr (mean 15 Aug, latest 6 Sep 1965); (B) "Common summer resident and abundant transient... the most common swallow in the area", 22 Apr-7 Sep, max 300 (4 May 1948); (E) arrival, earliest 19 Apr, mean 5 May (8 yr), max 50 (6 May 1963), 250 (5 May 1979), (Jun-Jul) 20; departure, evidently in July, latest stragglers 12 Aug 1979 (5+); (T, others) "Very common transient and common summer resident... once again the... commonest breeding swallow", max (spring) 900+, 23 Apr 1980, (fall) 2000+, 24 Aug 1975 (T) [exceptional compared to lack of fall flocking in 1980s and 1990s]; also 7 Jun 1980 (2000) (CD, in NSB), all large counts at Amherst Pt MBS.

Strait

Present Status: fairly common summer resident and spring transient, no fall staging; (E) arrival, earliest 27 Apr, mean 18 May (10 yr); max (Apr-May) 150+ (12 May 1984, 12 May 1989), (Jun-Jul) 10+; departure, probably mid-July, few stragglers (latest 18 Aug 1997, 2+); (Atlas, MNRS) breeding confirmed in all squares; 19 cards (all years), eggs 29 May-18 Jun, yg 21 Jun-

28 Jul (var obs); noted widely.

History: (E) 3 May-26 Jul, max 10.

Notes: numbers low for several years following severe spring mortality 1959 (Bagg 1959, Erskine *in* Boyer 1966), also 'crashed' 1974, 1990; overall decrease latterly (low since 1990, very low since 1997); BBS indices, nearby rtes -1.2% (14), Ecozone -2.4%* (88).

Northern Rough-winged Swallow *Stelgidopteryx serripennis* [NRwS]

Present Status: vagrant, one report, 10 Jun 2000 (1, with 1000+ of 3+ other spp swallows), Eddy msh (E and A Mills, in NSB).

Note: [sparse breeding in SW N.B. (and across so Maine)]; some vagrancy here is plausible.

Bank Swallow *Riparia riparia* [BanS]

Fundy

Present Status: fairly common summer resident; (E,M) arrivals, earliest 16 May, mean 27 May (12 yr), max 150+; latest 29 Aug; (Atlas, MNRS) in 14 squares, breeding confirmed in 9; 6 nests/colonies (all years), eggs 27 Jun-12 Jul, yg 15 Jul-15 Aug (var obs); (Distribution) most nr shores, rivers, e.g. Memramcook L, Grande Anse, Rampasture msh, Sackville, Tantramar R, Jolicure, Amherst, Maccan, R Hebert.

History: (M) nr Memramcook in 32 yr 1931-79, arrivals, (exceptional 1 May) earliest 12 May, mean 21 May (20 yr), max (May) 400, (Aug) 1000; departures, mean 23 Aug (9 yr), latest 2 Sep; (B) "common... third most abundant swallow...", 12 May-7 Sep, sev colonies 100-200 pr; (E) 21 May-25 Aug, max 250; (T) exceptional numbers at Amherst Pt MBS 25 May 1980 (3000).

Strait

Present Status: fairly common summer resident; (E) 22 May-22 Aug, max 70+; (Atlas, MNRS) breeding confirmed in nrly all squares; 23 nests/colonies (all years), eggs 15 Jun-20 Jul, yg 1-30 Jul (var obs); (Distribution) most nr shores, e.g. Shemogue, Murray Cor, Cape Tormentine, Timber R, Port Elgin, Tidnish R, Northport, Port Howe.

History: (E) 18 May-30 Aug, max 37.

Changes: numbers varied erratically, but declining on both coasts - sea-cliffs suitable for nests are eroding rapidly and constantly; BBS indices, nearby rtes -4.3%+ (13), Ecozone -10.2%+ (72).

Barn Swallow *Hirundo rustica* [BarS]

Fundy

Present Status: uncommon summer resident, major decrease since 1993; (E, Others) arrival, earliest 4 May, mean 13 May (15 yr); max (-1992/1993-) 100/10+; departure, mean 5 Sep (6 yr), latest 20 Sep; stragglers 4 Nov 1981 (2), Jolicure (ST, in NB Nat), 21 Oct 1999 (1), Taylor Vill (A Clavette, in NB Nat); (Atlas, MNRS) breeding confirmed in all squares; 68 nests (all years), eggs 28 May-2 Aug, yg 22 Jun-4 Aug (var obs); (Habitats) until recently, noted very widely in open habitats and regularly around buildings in urban and rural areas.

History: (M) nr Memramcook in 41 yr 1929-79, arrival, earliest 27 Apr 1970, mean 7 May (24 yr), max 500 (1971), departure, mean 5 Sep (18 yr), latest 30 Sep 1971, stragglers 8,9 Nov 1931 (1), 9 Nov-2 Dec 1948 (max 6); (B) "Common summer resident and transient... the second most abundant swallow", 27 Apr-14 Sep, stragglers 10-11 Nov 1948 (3,2); max 250, 26 May 1952;

nests, eggs 18 Jun-4 Jul, yg 23 Jul; (E) arrival, earliest 5 May, mean 11 May (9 yr), max 60, 22 Aug 1965, departure, mean 7 Sep (12 yr), latest 14 Sep; (Others) arrivals, 23 Apr 1973 (2) & 23 Apr 1977 (25), exceptional numbers 14 May 1977 (1000+), all Amherst Pt MBS (CD, in NSBSN).

Strait

Present Status: uncommon summer resident, decrease in recent years; (E, others) 22 May-2 Sep, stragglers mid-Nov 1981 (15), Bayfield (ST, in NB Nat); max (-1992/1993-) 16/5+; (Atlas, MNRS) breeding confirmed in all squares; 28 nests (all years), eggs 8 Jun-27 Jul, yg 19 Jun-9 Aug (var obs); (Distribution) widely in open areas, e.g. Drisdelle to Murray Cor to Cape Tormentine to Upper Cape to Port Elgin to Linden to Port Philip.

History: (E) 15 May-20 Aug, max 35; (Others) notable concentration 21 Aug 1968 (1000), Heather Beach (E Lowerison, in NSBSN); straggler 4 Nov 1973 (1), Cape Tormentine (ST, in NB Nat).

Changes: gradual decrease with loss of farm buildings, long before decrease (seemingly not from regional causes) in last decade; BBS indices, nearby rtes -3.9%* (13), Ecozone -5.4%* (86).

Cliff Swallow *Petrochelidon pyrrhonota* [ClSw]

Fundy

Present Status: fairly common summer resident, no large colonies known recently (no systematic counts); (E, others) 13 May 2000 (J Ogden, in NSB) -15 Aug, max 50; (Atlas) in 13 squares, breeding confirmed in 10; (Distribution) colonies at Fairfield, Westcock, Sackville, Highmarsh rd, Midgic, R Hebert (E); also noted at Memramcook L, Beaumont, Dorchester, Hog L, Amherst Pt MBS.

History: (M) nr Memramcook in 26 yr 1929-79, arrival, earliest 1 May 1970, mean 21 May (20 yr), max 150+ (22 May 1967), latest 17 Sep 1971; (B) "Rare summer resident but common transient", 9 May-5 Sep, max 250 (6 Jun 1955, Midgic); (E) 17 May-5 Sep, max 14;

Strait

Present Status: fairly common summer resident, only recent large colony at Cape Jourimain lighthouse; (E, others) early straggler 25 Apr 1984, nr Port Elgin (B Dalzell, in NB Nat); 3 Jun-30 Jul, max 75+; (Atlas) in all squares, confirmed in nrly all; (Distribution) colonies nr Drisdelle, Mates Cor, Johnson Pt, Murray Cor, Cape Jourimain NWA, Bayfield, Cape Spear, Timber R; also noted at Anns Acres, Melrose.

History: (M) nr Cape Tormentine 29 Jul 1932 (500); (E) 29 May-26 Jul, max 50+.

Notes: recent decline in HoSp perhaps reduced former losses of ClSw caused by the alien species.

Changes: clearly declined, but no sequential data on individual colonies; BBS indices, nearby rtes -1.5% (11), Ecozone -1.9% (60).

Black-capped Chickadee *Poecile atricapilla* [BcCh]

Fundy

Present Status: common year-round resident, occasional fall emigrations; (E) all months; max (Apr-Sep) 14+; (Oct-Mar) to 30+ during emigration; (Atlas, MNRS) in all squares, breeding confirmed in most; 8 nests (all years), eggs 25 May-20 Jul, yg 25 Jun-15 Jul (var obs); (Habitats, Distribution) very widely, in most areas with any tree or tall-shrub cover, including urban/suburban areas (esp winter feeders), only noted in open and wetland habitats during emigrations (e.g. Sep 1983); (CBCs) Sackville all 20 yr (max 730, 1995), Amherst all 20 yr (max 459, 1997).

History: (M) nr Memramcook in 44 yr 1928-80, all months; max (Apr-Sep) 14, (Oct-Mar) 32+; (B)

"Common resident", a flock of 25+ in cattails at Midgic 2 Oct 1949 [emigration?]; (E) all months, max (Apr-Sep) 9, (Oct-Mar) 20; (CBCs) Sackville all 21 yr (max 251, 1980), Amherst 19 yr (max 110, 1980).

Strait

Present Status: common year-round resident, occasional fall emigrations; (E, others) all months except Jan-Feb (when few visits, fewer in suitable habitats); max (Apr-Sep) 18 (E), (Oct-Mar) 300+ (21 Oct 1995, Cape Tormentine-Port Elgin, moving; 200 (12 Oct 1993, Cape Jourimain NWA; both ST, in NB Nat); (Atlas, MNRS) in all squares, confirmed in most; 2 nests (all years), yg 25 Jun-6 Jul (A Smith, J Taylor); (Habitats, Distribution) very widely, in most areas with some tree or tall-shrub cover, including villages (with winter feeders); (CBCs) Cape Tormentine all 20 yr (max 412, 1992).

History: (E) few visits to suitable habitats then except in fall and CBCs, max (Dec) 16; (CBCs) Cape Tormentine all 20 yr (max 172, 1974).

Notes: recent proliferation of feeders draws most birds out of nearby woods in winter.

Changes: no certain status changes; birds more obvious at feeders than in woods, so noted more often recently; BBS indices, nearby rtes +6.8%+ (14), Ecozone +4.8%* (87).

Boreal Chickadee *Poecile hudsonica* [BoCh]

Fundy

Present Status: uncommon year-round resident; (E) all months, now seldom >5 dates/yr, max 6; (Atlas, MNRS) in 15 squares, breeding confirmed in 8; breeding evidence mostly family groups; 3 nests (all 1967), eggs 4-25 Jun, yg 25 Jun-15 Jul (W McNutt); (Habitat, Distribution) only in conifer forests (except odd strays), nr Beaumont, Grande Anse, Frosty Hollow, Breau Ck (upper), Aboushagan rd, Brooklyn Rd, Jolicure, Salem; (CBCs) Sackville all 20 yr (max 41, 1994), Amherst all 20 yr (max 40, 1987).

History: (M) one-day counts up to 19 birds in fall to 1967, vs. none >6 later; (E) noted 27-33 each on 3 Sackville CBCs in 1960-67, vs. no dates >7 birds after return to area 1977; (Others) notably large numbers 1972 Amherst Pt MBS, 8 Oct (20), 2 Nov (12), 27 Dec (15) (CD, in NSBSN); (CBCs) Sackville 20 yr (max 62, 1967), Amherst 15 yr (max 31, 1977).

Strait

Present Status: uncommon year-round resident; (E) only Jul-Dec (little time in habitat other months), max 11+ (CBC 1991); (Atlas) in 11 squares, breeding confirmed in 9; (Distribution) nr Square L, Cape Jourimain NWA, Cape Tormentine, Melrose, Baie Verte, Tidnish, Amherst Shore Prov Park; (CBCs) Cape Tormentine all 20 yr (max 51, 1988).

History: (E) occasional in forests; (CBCs) Cape Tormentine 19 yr (max 74, 1975).

Change: major decline after conifer forests broken-up by budworm and salvage logging (esp nr Fundy) in mid-late 1970s; BBS indices, nearby rtes -4.9% (12), Ecozone -7.6%* (64).

Red-breasted Nuthatch *Sitta canadensis* [RbNu]

Fundy

Present Status: fairly common summer resident, scarce winter resident; (E,M) - arrival, earliest 20 Mar, mean 12 Apr (9 yr); max 8+ (after yg flying); departure unclear (early-mid Oct?), owing to irregular lingering; (Atlas, MNRS) - in all squares, breeding confirmed in most; nest nr

Fenwick (same tree as WbNu nest!) 8 Jun 1962, yg (E Lowerison); (Habitat, Distribution) - widely in conifer/mixed forests, seldom in towns, e.g. Memramcook E, Cape Maringouin, Westcock, Breau Crk (upper), Midgic, Jolicure, Amherst Pt MBS, Minudie, Little Forks; (CBCs) Sackville 16 yr (annual from 1987, max 107, 1988); Amherst 18 yr (annual from 1986, max 87, 1988) [Note: 1988 had v heavy spruce and fir cone crop].

History: (M) nr Memramcook in 25 yr 1928-80, regularly only in 'Bissett woods', all months except Jun, max 10; (B) "Rare, probably breeds..., far less frequently than would be expected", only 4 local records 1949-55 (when McManus also saw few); (E) all months except Feb; 10 May-19 Oct; max 12; few in winter, CBCs, 7 Jan, 4 and 12 Mar, 2 Apr; none fall 1977-winter 1979-80; (CBCs) Sackville 7 yr (max 28), Amherst 8 yr (max 28), both max 1974 (when far more than any winter before 1988-89).

Strait

Present Status: fairly common summer resident; recently wintering (to CBCs); (E) 27 Mar-9 Oct; max 8+ (none 1981-85); (Atlas, MNRS) in all squares, confirmed in most; nest nr Port Howe 18-25 Jun 1991, yg (J Taylor); (Habitat, Distribution) widely in conifer/mixed forests, e.g. Drisdelle, Poucette L, Murray Cor, Cape Jourimain NWA, Melrose, Baie Verte, Tidnish R, Amherst Shore Prov Park; (CBCs) - Cape Tormentine 14 yr (annual from 1987, max 83, 1988).

History: (E) only record 28 Dec 1966 (1), S of Cadman Cor [spent little time in woods then except on CBCs]; (CBCs) - Cape Tormentine 5 yr (max 27; 1974, as above).

Changes: overwintering regularly only from 1986-87, noted nr Strait only once before then, thus apparent increase recently; BBS indices, nearby rtes +1.1%, Ecozone +6% (73).

White-breasted Nuthatch *Sitta carolinensis* [WbNu]

Fundy

Present Status: irregular uncommon winter visitant, occasional scarce summer resident; (E) in Sackville 5 Oct-14 Apr (9 winters); only summer record - Sackville 22 Aug 1993 (1); (Atlas) nr Centre Vill and Amherst (breeding not confirmed); (CBCs) Sackville 7 yr (max 2); Amherst 17 yr (max 5).

History: (M) nr Memramcook, only records 12-28 Nov 1965; 23 Apr-5 May (5 yr); 28 Jun 1934, 9 Sep 1964, all singles; (B) only records Westcock, 14 May 1955, 30 Sep 1949; (E) in Sackville, 18 Sep-30 Apr (7 winters); Fenwick 11 Jun 1961; (Others) nest Fenwick (same tree as RbNu nest!) 8 Jun 1962, yg (E Lowerison); fall return 2 Nov 1975 (1), (CD, in NSBSN); (CBCs) Sackville 10 yr (max 5), Amherst 14 yr (max 4).

Strait

Present Status: only recent records were on Cape Tormentine CBCs 1983, 1987 (singles); [none earlier].

Changes: early data too sparse and irregular to show trends clearly, perhaps increased earlier, then decreased after mid-1980s.

Brown Creeper *Certhia americana* [BrCr]

Fundy

Present Status: probably fairly common year-round resident, seldom detected latterly (when McManus and Erskine no longer could hear its calls); (E,M) 6 records, 1/mo Jul-Aug, Nov-Feb; (Atlas, MNRS) in 4 squares, breeding confirmed nr Beaumont; 2 nests (all years), eggs 9-12 Jun, Grande Anse, Walker rd (D Kimball); (Distribution): also nr Sackville, Amherst Pt MBS;

(CBCs) Sackville 14 yr (max 5, 1996), Amherst 17 yr (max 8, 1993).
History: (M) nr Memramcook in 16 yr 1930-80, all months except Jun-Jul, Sep, all singles; (B) "Irregularly common visitant, rare summer", max 3 (winters 1948-49); spring & summer records at Beech Hill rd & Jolicure; (E) 4 records 1961-68 (Mar-Apr, Sep), also 22 May 1978 (song); (CBCs) Sackville 6 yr (max 2), Amherst 3 yr (max 2).

Strait
Present Status: probably fairly common year-round resident; (Atlas) no recent records except in Atlas - in 8 squares, breeding confirmed in 3, and CBCs; (CBCs) Cape Tormentine 11 yr (max 3, 1991).
History: (CBCs) Cape Tormentine 6 yr (max 6, 1978).

Notes: most seen in winter - more easily noticed when few other birds in woods; song little-known before late 1960s (likely confused earlier with GcKi or warblers?), certainly under-recorded (esp latterly, when hearing loss reduced detections).
Changes: data too sparse to show trends, nor occurrence of migration.

House Wren *Troglodytes aedon* [HoWr]

Fundy
Present Status: summer vagrant, no recent reports.
History: (T) "a bachelor male sang and built nests in two bird houses... July/72... in Sackville".

Strait:
Present Status: no recent records.
History: 17 Aug 1972, Chapman Cor (D Finch and A McInnis, in NB Nat) [possibly same bird as above?].

Notes: [never bred regularly in Maritimes, where no confirmed breeding in N.B. between 1946 and 1992, 1994 (MNRS); unpaired males sometimes sing for weeks, and build 'cock-nests' in boxes, far beyond regular breeding range - as here].

Winter Wren *Troglodytes troglodytes* [WiWr]

Fundy
Present Status: fairly common summer resident; [not seen in winter, despite its name]; (E, others) arrival, earliest 24 Apr, mean 5 May (11 yr); max 5; latest (song) 3 Aug; (sight) 2 Oct 1999 (J Ogden, in NSB); (Atlas) in nrly all squares, breeding confirmed in 2; (Habitat, Distribution) in woodlands, e.g. Memramcook E, Cape Maringouin, Sackville, Cookville, Jolicure, Amherst Pt MBS, R Hebert, Little Forks.
History: (M) nr Memramcook in only 11 yr 1932-80 [perhaps mostly sightings?], noted 18 Apr-4 Oct, max 3; (B) "Uncommon summer resident", 2 Apr-15 Oct, max 4; (E) 14 Apr-16 Sep, max 5; (Others) lingered 1 Nov-6 Dec 1975 (1), Amherst Pt MBS (CD, in NSBSN).

Strait
Present Status: fairly common summer resident; (E) 27 May-21 Jul, max 6; (Atlas) in nrly all squares, confirmed nr Amherst Head; (Habitat, Distribution) in woods, nr Drisdelle, Square L, Murray rd, Bayfield, Tidnish R, Amherst Shore Prov Park.
History: (E) 13 Jun 1967, max 2+.

Changes: no strong indication of changed status; longer 'season' in past might mean more birds [most observers' hearing better then, but less time spent in suitable habitats], generally more detected now; BBS indices, nearby rtes -3.9%+ (14), Ecozone -0.1% (86).

(Long-billed) Marsh Wren *Cistothorus palustris* [MaWr]

Fundy

Present Status: scarce summer resident; (E, others) [exceptional, Amherst Pt MBS 10 Apr 1999 (1)(E)]; 30 May 1999 (J Ogden, in NSB) -31 Jul; max 10 (5 Jul 1991, Y Cormier, in NB Nat); in 6 summers 1991-2000; (Atlas, MNRS) breeding confirmed at Amherst msh and Amherst Pt MBS; nest, yg 5 Jul 1992, Eddy msh (J Taylor); 'cock-nest' (no eggs) Tintamarre NWA 3 Jun 1986 (A Smith); (Distribution) also at White Birch rd, Towers Goose L (Midgic).

History: scarce summer resident 1938-55, then none detected until 1973 (after first local impmts built); (M) at Memramcook L 28 Sep-2 Dec in 6 yr 1935-68, max 3; (P) 28 May 1938, Midgic; (B) "Uncommon summer resident and fairly common transient" at Midgic, 29 May-8 Dec 1949-55; (E) no records then; (T, others) reappeared 1973-80 when impmts dev'd at Tintamarre NWA, Missiquash msh, Amherst Pt MBS (most), 17 May-23 Aug, max 10 (fam grps) (var obs, in NSB and NB Nat).

Strait

Present Status: [no recent records].

History: only record, Cape Tormentine CBC 1973 (1).

Changes: too scarce to show trends convincingly; data suggest disappearance and re-establishment.

Sedge Wren (Short-billed Marsh Wren) *Cistothorus platensis* [SeWr]

Fundy

Present Status: probably extirpated; (Atlas) only recent report, one singing bird hd/seen Tantramar msh 30 Jun-2 Jul 1989 (D Clark and J Wilson, in NB Nat).

History: scarce local summer resident, no detailed reports 1955-73; (M) 29 Aug 1949(2), Memramcook L; (B) "Locally common summer resident", 15 May-14 Aug, max 10+ (most by A Hagar, pers comm); (E) none found in 1960s (though knew species from Ont-Mich); (T, others) 11 Jul (7) and 27 Aug (2) 1973, also summer 1974, Tintamarre NWA (D Finch, ST), were last reports.

Strait

Present Status: [no reports (ever) nr Strait].

Notes: "groups of singing males occurred... near Sackville [= Midgic?] and Jolicure almost annually from 1949 into the early 1970s... none of these sites seems to have been used since 1975" (Atlas); probably nrly gone by 1960 (B).

Blue-gray Gnatcatcher *Polioptila caerulea* [BgGn]

Fundy

Present Status: irregular vagrant/summer resident; (T, others) 25 May 1981, Amherst Pt MBS (ST and K Cash); 22 Nov 1981, Sackville (R Lamberton and S Rotroff, in NSB); 6 Dec 1984, Amherst (CD, in NSB), singles; 14-16 Jul 1989, ad feeding unfledged yg on ground, in garden in Sackville (C Finney, B Hawke, in Atlas).

History: (M,B,E) no records (last knew species in Ont, Fla); (T) "Very rare visitant", 6 Jun 1974 (1, photo'd, ST), 10 May 1976 (1, R Lamberton), both Sackville.

Strait

Present Status: vagrant, 16 May 1993 (2), Cape Jourimain NWA (ST, in NB Nat).

Notes: [mainly a bird of southern U.S.A., but breeding N to s Ont. and (recently) sw Maine; strays reported on s coasts N.B. and N.S. near-annually since 1980].

Golden-crowned Kinglet *Regulus satrapa* [GcKi]

Fundy

Present Status: year-round resident, common summer, fairly common winter; (E) all months except Feb, max 8; (Atlas) in all Atlas squares, breeding confirmed in most; (Habitat, Distribution) widely in conifer/mixed woods, e.g. Grande Anse, Frosty Hollow, Breau Crk (upper), Aboushagan rd, Jolicure, Amherst Pt MBS; (CBCs) Sackville all 20 yr (max 126, 2000), Amherst all 20 yr (max 158, 1988).

History: (M) nr Memramcook 1928-80, all months; max 25 in 1932-34, 9 thereafter; (B) "Fairly common resident", max 20; (E) all months, max 26; (CBCs) Sackville 19 yr (max 158, 1974, next 46, 1979), Amherst 13 yr (max 53, 1979).

Strait

Present Status: fairly common year-round resident; (E) 12 Apr-18 Dec, max 4; (Atlas) in all squares, confirmed in most; (Habitat, Distribution) widely in conifer/mixed forests, e.g. nr Square L, Cape Jourimain NWA, Bayfield, Cape Tormentine, Malden, Melrose, Tidnish, Amherst Shore Prov Park; (CBCs) Cape Tormentine all 20 yr (max 158, 2000, next 113, 1988 and 1991).

History: (E) few visits in habitats (except CBCs): 23 Mar, 13 Jun, 25 Oct-28 Dec; max 19; (CBCs) Cape Tormentine 18 yr (max 66, 1974, next 41, 1964).

Notes: decline, likely owing to (conifer) habitat loss; hearing loss by regular observers (M,E) also suggested decrease, but detected widely - implying high frequency in an inconspicuous species - during Atlas, when younger observers visited this area; BBS indices, nearby rtes -7.9% (11), Ecozone +3.6% (61).

Ruby-crowned Kinglet *Regulus calendula* [RcKi]

Fundy

Present Status: common summer resident; (E) arrival, earliest 16 Apr, mean 26 Apr (14 yr); max 16; latest (song) 23 Aug, (seen) 12 Oct; (Atlas) in all squares, breeding confirmed in 5; (Distribution) widely in conifer and mixed woodlands, e.g. Memramcook E, Grande Anse, Sackville, Aboushagan rd, Centre Vill, Jolicure, Amherst Pt MBS, R Hebert, Little Forks; (CBCs) Sackville 1992 (1).

History: (M) nr Memramcook in 35 yr 1931-80, arrival, earliest 7 Apr, mean 25 Apr (19 yr), max 13+, departure, mean 4 Oct (6 yr), latest 16 Oct (stragglers 30 Nov 1941, 28 Nov 1967); (B) "Fairly common summer resident", 20 Apr-8 Dec [last date presumably a straggler]; (E, others) arrival, earliest 14 Apr, mean 28 Apr (5 yr), max 12, latest 14 Oct; straggler 8 Dec 1973, Amherst (CD, in NSBSN); (CBCs) Sackville 1973, 1974, 1975 (singles).

Strait

Present Status: common summer resident; (E) 24 Apr-17 Sep, max 10; (Atlas) in all squares, confirmed in most; (Habitat, Distribution) widely in conifer and mixed woodlands, e.g. Drisdelle, Square L, Duguay Pt, Murray rd, Bayfield, Port Elgin, Tidnish R, Amherst Shore Prov Park; (CBCs) Cape Tormentine 1986 (1).

History: (E) few visits to suitable habitats in season; 18 May-14 Jun, max 4; (CBCs) Cape Tormentine 1973 (1), 1974 (2).

Changes: no obvious change in status; BBS indices, nearby rtes -2.3%+ (14), Ecozone -1.4% (86).

Northern Wheatear *Oenanthe oenanthe* [NoWh]

Fundy

Present Status: vagrant, 6 Apr 1992 (m), Tantramar msh (B MacWhirter and J Wilson, in NB Nat).

Strait

Present Status: [no reports (ever) nr Strait].

Notes: [occasional in Maritimes; 12 records in N.S. 1969-84 (Tufts 1986) May-Jun, Aug-Oct]; local report was earlier than any of those.

Eastern Bluebird *Sialia sialis* [EaBl]

Fundy

Present Status: scarce summer resident; (E, others) mid-Apr to early Aug, 1s, 2s, fam grps; (Atlas, MNRS) most records during Atlas; 6 nests, eggs 1-16 Jun, yg 22 Jun-24 Jul, Taylor Vill, Frosty Hollow, Sackville, Up Sackville (var obs), most nests in nest-boxes, one family grp in forest clearcut nr Centre Vill (R Calkins).

History: (M) nr Memramcook 4 yr 1943-64, arrival 19-27 Apr (3 yr); 27 Apr-25 May 1950 (1-2), Gaytons - no mention of nesting; latest 11 Jun; (B) "Occasional", one record, 3 May 1950 (1, "examining" nest-box); (E) none (before 1982); (T) 7 Jun 1973, Midgic (D Finch), 27 Apr 1974, Amherst (R Blacquiere), 26 May-summer 1979, Up Sackville (nesting pr, W Prescott).

Strait

Present Status: scarce summer resident; [no earlier reports]; (Atlas, MNRS) pr nested successfully nr Melrose, in nest-box, 1988.

Changes: overall possibly slight decrease (never common); some recovery since decline caused by arrival and competition of EuSt from 1930 [as elsewhere in Maritimes].

Veery *Catharus fuscescens* [Veer]

Fundy

Present Status: scarce summer visitant/resident; (E) 15 May-1 Sep, singles; (Atlas, MNRS) breeding probable Sackville w-f park 2000 [conf 2001], but in Atlas no sightings nearer Fundy than Cookville and Up Nappan; (Distribution) at Calhoun, Beaumont, Westcock, Fairfield, Mt View, Amherst Pt MBS, Chignecto, Fenwick.

History: (M) 6 records nr Memramcook 1931-74, 15 May-8 Aug, max 3; (B) none (in his limited area); (E) 23 Jun 1979, Up Nappan; (T) "Locally uncommon summer resident", Mt View, White Birch rd, Amherst Pt MBS, Up Nappan; straggler 11 Oct 1975.

Strait

Present Status: uncommon but widespread summer resident; (E) 3 Jun-9 Aug; max 4; none detected until 1986 (Atlas); (Atlas) in most Atlas squares on Northumberland Plain, confirmed breeding in 8; (Distribution) at Drisdelle, Duguay Pt, Murray Cor, Spence, Anns Acres, Bayfield, Oulton rd, Tidnish R.

Notes: scarcity nr Fundy perhaps because mainly conifer forests, until recent hardwood regeneration (after conifers killed by budworm 1974-75); apparent increase nr Strait reflected more summer field-work there during and since Atlas.

Changes: possible increase [as generally in N.S.]; but BBS indices, nearby rtes -2.3%+ (12), Ecozone -1.1% (79).

Gray-cheeked Thrush *Catharus minimus* [GcTh]
Bicknell's Thrush *C. bicknellii* [BiTh]

Fundy

Present Status: (hypothetical) uncertain, possible transient; no certain records of either species, which were combined until 1995.

History: questionable; "This species does not spend any time in this region during migration but is heard flying over at night. It may be much more common than is apparent" (B); McManus, Erskine, and Tingley did not detect either species locally, even during migration.

Strait

Present Status: [no reports (ever) nr Strait].

Swainson's Thrush (Olive-backed Thrush) *Catharus ustulatus* [SwTh]

Fundy

Present Status: common summer resident; (E) arrival, earliest 10 May, mean 24 May (16 yr); max 17; latest (song) 7 Aug; (Atlas, MNRS) in all squares, confirmed breeding in 7; 3 nests (all years), eggs 4-21 Jun, yg 26-30 Jul (W McNutt, M Forbes, D Kimball); (Habitat, Distribution) very widely in most conifer and mixed woodland habitats, e.g. Memramcook, Grande Anse, Sackville, Aboushagan rd, Jolicure, Long L, Maccan, R Hebert, Little Forks.

History: (M) nr Memramcook, only 6 dates 1929-67 [likely sightings only?] vs. many 1970-80, arrivals, earliest 7 May, mean 25 May (8 yr), max 7, latest 5 Sep; (B) "Fairly common summer resident", 5 May-27 Oct [both these limiting dates seem exceptional for this species]; (E) arrival, earliest 12 May, mean 20 May (3 yr), max 17, latest (hd) 20 Jul, (seen) 18 Sep.

Strait

Present Status: common summer resident; (E) 30 May-5 Aug, max 18; (Atlas) in all squares, confirmed in 4; (Habitats, Distribution) widely in conifer and mixed habitats, e.g. nr Drisdelle, Anderson Sett, Hardy rd, Stillman rd, Spence, Cape St Laurent, Baie Verte, Amherst Shore Prov Park.

History: (E) 10 Jun-17 Jul, max 12.

Notes: no obvious change in status; probably under-recorded earlier, through confusion of songs with HeTh (?; M,B), or observer absence from area during (much of) song period (E); BBS indices, nearby rtes -2.8%* (14), Ecozone -0.7% (88).

Hermit Thrush *Catharus guttatus* [HeTh]

Fundy

Present Status: common summer resident; (E) arrival, earliest 24 Apr, mean 5 May (14 yr); max 10; latest (seen) 26 Sep; (Atlas, MNRS) in all squares, breeding confirmed in 3+; 2 nests (all years), eggs 7 Jun, yg 19 Jul (W Neily, E); (Distribution) widely in woodlands and bogs, e.g. Calhoun, Cape Maringouin, Sackville, Cookville, Amherst Pt MBS, R Hebert, Fenwick; (CBCs) Amherst 1998 (1).

History: (M) nr Memramcook in 28 yr 1930-80, arrival, earliest 20 Apr, mean 2 May (10 yr), max 6; departure, mean 12 Oct (8 yr), latest 23 Oct; (B) "Fairly common summer resident", locally common, 4 Apr [v early] -30 Oct; (E) 28 Apr-1 Oct, max 6; (CBCs) Sackville 1976 (1).

Strait

Present Status: common summer resident; (E) mid-May to mid-Aug, max 7; (Atlas) in all squares, confirmed breeding in 10; (Distribution) nr Drisdelle, Anderson Sett, Murray Cor, Stillman rd, Anns Acres, Baie Verte, Amherst Shore Prov Park.

History: (E) 10-14 Jun (few visits to suitable habitats in season), max 3.

Changes: no evidence of change in status; Erskine (in Boyer 1966) thought numbers low 1960-62, after winter losses in USA 1958, but his field effort in suitable habitats was minimal then; BBS indices, nearby rtes -0.9% (14), Ecozone +0.3% (82).

American Robin *Turdus migratorius* [AmRo]

Fundy

Present Status: abundant summer resident and transient, some lingering or wintering; (E) arrival, earliest 16 Mar, mean 26 Mar (20 yr); max (Mar-Apr) 60+, (May-Aug) 21, (Sep-Oct) 50+, (Nov-Feb) 15+; departure, mean 3 Nov (17 yr), latest 21 Nov; stragglers to Dec 6 yr (max 9), Jan 3 yr (max 17), Feb 5 yr (max 15); (Atlas, MNRS) breeding confirmed in all squares; 76 nests (all years), eggs 8 May-7 Jul, yg 19 May-21 Aug (var obs); (Habitats, Distribution) widely in urban and rural areas (except pure conifer forests), in winter mainly when tree fruits persist late; (CBCs) Sackville 14 yr (max 299, 2000; 265, 1994; next 49, 1997), Amherst 16 yr (max 23, 1994).

History: (M) nr Memramcook in 48 yr 1928-80, arrival, earliest 21 Mar 1976, mean 1 Apr (25 yr); max (Mar-Apr) 100, (May-Aug) 17, (Sep-Nov) 100; departure, mean 28 Oct (27 yr), latest 14 Nov; stragglers to Dec 6 yr (max 4); Jan 4 yr (max 6); Feb 1 yr (1); (B) "Very common summer resident, occasional winter visitant", 3 Mar [v early] -16 Nov, max 145 (26 Mar 1955), nests, eggs 14 May-16 Jul, yg to 19 Jul; (E) arrival, earliest 26 Mar, mean 1 Apr (8 yr), max (Mar-Apr) 125, (May-Aug) 117, (Sep-Nov) 185, departure, mean 26 Oct (12 yr), latest 12 Nov, stragglers (max 3) to Dec 4 yr, Jan 2 yr, Feb 2 yr; (CBCs) Sackville 14 yr (max 8, 1976), Amherst 7 yr (max 5, 1972 and 1976);

Strait

Present Status: common summer resident and transient, some linger or visit in winter; (E) arrival, earliest 25 Mar, mean 3 Apr (9 yr); max (Mar-Apr) 20+, (May-Aug) 35+, (Sep-Nov) 45 (Nov 2000); departure 26 Oct (8 yr), latest 21 Nov; (Atlas, MNRS) breeding confirmed in all squares; 29 nests (all years), eggs 6 Jun-25 Jul, yg 22 May-6 Aug (var obs); (Habitats) widely in villages and rural areas (except pure conifer forests); (CBCs) Cape Tormentine 11 yr (max 32, 1991).

History: (E) 24 Mar-17 Nov, max 43; (CBCs) Cape Tormentine 11 yr (max 11, 1976).

Changes: no convincing evidence of change in residents, general decline in transients (esp fall) after 1980 [vs. exceptional numbers spring 2001]; BBS indices, nearby rtes -0.1% (14), Ecozone -0.3% (91).

Varied Thrush *Ixoreus naevius* [VaTh]

Present Status : vagrant, no recent records.
History: 6 Jan 1968 (1), Sackville (E; W and C Godfrey) [then 3rd record in N.B.].

Notes: [of regular occurrence only W of Manitoba].

Gray Catbird *Dumetella carolinensis* [GrCa]

Fundy
Present Status: fairly common summer resident; (E) arrival, earliest 17 May, mean 25 May (12 yr), max 3; latest (song) 31 Jul, (seen) 12 Sep; (Atlas, MNRS) in most squares, breeding confirmed in 7; 3 nests (all years), eggs 20 May-20 Jul, yg 4-15 Jul, Sackville, Amherst Pt MBS (G Burns, W McNutt); (Distribution) also noted nr Beaumont, Fairfield, Westcock, Aboushagan rd, Jolicure, Amherst, R Hebert, Little Forks.
History: (M) nr Memramcook, no records before 1958 [!?], vs regularly 1960-74, 19 May-16 Sep, max 2; (B) "Rare summer resident", 21 May-15 Aug, noted only nr Westcock, Fairfield, White Birch rd; (E) nr Sackville in only 3 yr 1960-69, more often 1979-80, 20 May-8 Aug, all singles; (T) "Uncommon to fairly common summer resident", 108 banded at Tintamarre NWA 1972-78; (Others) early arrival 1 May 1976 (1), Amherst Pt MBS (CD, in NSBSN).

Strait
Present Status: fairly common summer resident; (E) 28 May-7 Aug, max 3; (Atlas, MNRS) found and confirmed in nrly all squares; 4 nests (all years), eggs 8-30 Jun, yg 28 Jun-13 Jul, at Port Elgin, Seagrove, Linden, Port Howe (var obs); (Distribution) nr Poucette L, Johnson Pt, Collins L, Cadman Pt, Noonan rd, Cape Jourimain NWA, Oulton rd, Baie Verte, Tidnish.
History: (E) 21 Jul 1969 (1); (CBCs) Cape Tormentine 1979 (1).

Changes: data inconclusive, but increase seems likely; BBS indices, nearby rtes -2.3% (14), Ecozone -0.1% (71).

Northern Mockingbird *Mimus polyglottos* [NoMo]

Fundy
Present Status: irregular scarce year-round resident and visitant; (E, others) all months except Feb, most singles; (Atlas, MNRS) 'probable breeding' nr Amherst; Sackville 1984 (2 nestings)(var obs); (Distribution) at Gaytons, Memramcook, Sackville, plus Atlas records; (CBCs) Sackville 6 yr (max 2, 1992), Amherst 1984-85, 1993.
History: (M) singles 3x in 1949, 11-17 Nov 1967; (B) one collected in Westcock Dec 1955; (E) 1st in Sackville winter 1961-62; 15 Nov 1965; (Others) 24-25 Oct 1964, Sackville (Mrs Munro, in Nat News); 14 Jul 1972 (1), Sep 1975 (sev ads, 3 yg), Amherst (CD, in NSBSN); winter 1974-75, Sackville (A Smith, in NB Nat); (CBCs) Sackville 1979, Amherst 1975, 1977 (all singles).

Strait
Present Status: scarce irregular resident; (Atlas, MNRS) found in 3 squares, breeding not

confirmed: no reports before 1987; 5 nestings [1992(2), 1993, 1995(2)], eggs Jun-10 Jul, yg 29 Jun-1 Aug, nr Amherst Shore, Northport (J Taylor, F and L Stiles); also nest-bldg Bayfield 1982; (CBCs) Cape Tormentine 1988, 1991, 1994 (all singles).
History: 17 Aug 1972 (D Finch and A McInnis), 3 Jul 1974 (K Ross), both Cape Jourimain NWA (in NB Nat).

Changes: slow increase 1949-80, more frequent later; breeding still not every year, influenced by varying winter survival of adults.

Brown Thrasher *Toxostoma rufum* [BrTh]

Fundy
Present Status: vagrant; (Others) 21 Jul 1983, Dorchester (ST, in NB Nat); one seen 9 dates May-Jun 1988, Westcock (P Bogaard, in Atlas).
History: (M; Nat News; B Addendum; T) 6 local records (all singles) 1967-77, 19 May-30 Dec, at Dorchester, Sackville, Tintamarre NWA, Jolicure, Amherst Pt MBS.

Strait
Present Status: [none reported nr Strait].

Notes: [breeds in western N.B., few seen before 1950, breeding not proven until 1968]; our region is clearly peripheral.

American Pipit *Anthus rubescens* [AmPi]

Fundy
Present Status: formerly scarce transient; no recent records.
History: (M) nr Memramcook, 21 records 1932-77, 19 Apr-19 May (5 yr), max 25; 3 Oct-11 Nov (5 yr), max 11; (B) 1 May 1953 (1), Westcock, only record; (E) in 1960s nr Sackville 29 Sep-14 Oct (5 yr), max 10; (T) "Uncommon transient... each year", most 1-5 birds; (Others) 8 May 1974 (15) (in NSBSN).

Strait
Present Status: vagrant; (Others) 5 Nov 1993, Cape Jourimain NWA (ST, in NB Nat)[only regional report after 1977].

Notes: seems to have forsaken this region, where it formerly was expectable near-annually, though uncommon.

European Starling* *Sturnus vulgaris* [EuSt]

Fundy
Present Status: abundant year-round resident, so frequent that many pass unnoted; (E) all months, max (Dec-Feb) 175+, (Mar-May) 500, (Jun-Aug) 5000+, (Sep-Nov) 5000+; (Atlas, MNRS) confirmed breeding in all squares; 122+ nests (all years), eggs 9 May-14 Jun, yg 24 May-31 Jul (many obs); (Habitats) very widely in open or partly open habitats incl shores; (CBCs) all years, max Sackville 1655, Amherst 2370.
History: (M) first detected 24 Mar 1932 (1st known record in SE NB), soon established; nr Memramcook, max (1930s) 300, (1940s) 500, (1960s) 1000, fewer noted in winter - except 1948-49 (400) and 1949-50 (450) - than Mar-Oct (likely partial exodus for winter); (B) "Very common summer resident and transient, fairly common in winter", max 2500 in fall; (E) noted

all months; apparent spring return noted early Mar (more conspicuous); few counts in 1960s (none >1000), so no pattern obvious; (CBCs) annually, max Sackville 1146, Amherst 1133.

Strait

Present Status: common year-round resident, frequent enough that many pass unnoted; (E) all months, max (Dec-Feb) 160, (Mar-May) 41, (Jun-Aug) 100, (Sep-Nov) 750; (Atlas, MNRS) confirmed in all squares; 4 nests (all years), yg 28 May-21 Jun (L Carbyn, A Smith); (Habitats) very widely in open or partly open habitats incl shores; (CBCs) annually, Cape Tormentine max 784.

History: (E) few visits then, and fewer notes; data sparse; (CBCs) annually, Cape Tormentine max 358.

Changes: early arrival and establishment, little change after 1950s; BBS indices, nearby rtes -1.0% (14), Ecozone -1.8%+ (85).

Notes: Plumage oddity - a bird with all head and neck pale yellowish frequented feeders all across Sackville town Dec-Feb 1964-65.

Bohemian Waxwing *Bombycilla garrulus* [BoWa]

Fundy

Present Status: irregular winter visitant, often fairly common when present; (E, others) arrival, earliest 23 Oct 1985 (13; ST, in NB Nat); mean 20 Nov (5 yr); latest seen 9 Mar 1998 (50); flocks >25 usual, max. 120 (7 Dec 1993); (Distribution) most sightings in or near Sackville and Amherst; (CBCs) Sackville 7 yr (max 86, 1997), Amherst 10 yr (max 159, 1989).

History: (M) 2 Apr 1972 (50), College Bridge (in NB Nat - his only record); (B) none noted; (E) 26 Dec 1963 (2), Sackville, only local record before 1970; (Others) Feb 1972 (1), Up Sackville (L Smith, in NB Nat); 6-17 Feb 1974 (2-4), 26 Feb 1975 (33), 10 Nov 1980, Sackville (various, in NB Nat); 1 Feb 1975, Amherst, Amherst Pt MBS (3), 1 Dec 1977 (1), 11 Feb 1978 (35), Amherst (CD, in NSBSN); (CBCs) Sackville 4 yr (max 12, 1972), Amherst 3 yr (max 36, 1977).]

Strait

Present Status: irregular winter visitant; (Distribution): most nr Bayfield-Cape Tormentine; (CBCs) Cape Tormentine 6 yr (max 116, 1999).

History: (Others) 22 May 1980 (1), Northport, 10 Oct 1980 (1) (ST, in NSB); (CBCs) Cape Tormentine 1978 (1).

Notes: [almost unknown in Maritimes before 1960s (Squires 1976, Tufts 1986)];

Changes: (re-?)appearance, marked increase from 1972, expectable (in season) since 1985.

Cedar Waxwing *Bombycilla cedrorum* [CedW]

Fundy

Present Status: uncommon to fairly common summer resident, occasional winter visitant; (E, others) arrival, earliest [except after overwintering; stray 7 May 1983 (1), J Lusby msh (CD, in NSB)] 29 May, mean 2 Jun (6 yr); max 10; departure, mean 29 Aug (9 yr), latest 14 Sep; winters 5 Jan 1991 (2), 25 Jan-9 Feb 2001 (max 12+); (Atlas, MNRS) in 15 squares, breeding confirmed in 11; 3 nests (all years), eggs 3 Jul, yg 15-20 Aug, Sackville (A Smith, C MacKinnon); (Distribution) at Dorchester, Rockport, Sackville (most), Breau Crk (upper), Midgic, Long L, Amherst Pt MBS, R Hebert; (CBCs) Sackville 1992(5), 1999(10), 2000(40); Amherst 1999(7).

History: (M) nr Memramcook in 29 yr 1929-80, arrival, stray 24-25 Apr 1963 (1), earliest 1 Jun, mean 7 Jun (8 yr), max 15, departure, mean 27 Aug (15 yr), latest 10 Sep, stragglers 3 Oct 1951 (1), 25 Sep-10 Oct 1961 (7->1); (B) "Common summer resident", 27 Apr [early straggler] -20 Oct, 5 nests 1948-54 Westcock; (E) arrival, earliest 2 Jun, mean 7 Jun (7 yr), max 15; departure, mean 19 Sep (13 yr), latest 11 Oct; (Others) stragglers 8 Dec 1973 (1), 10 Apr 1978 (1) Amherst (CD, in NSBSN); (CBCs) Sackville 1968 (1).

Strait

Present Status: uncommon to fairly common summer resident; (E) 24 Jun-10 Sep, max 10; stragglers 19 Nov; (Atlas, MNRS) in 22 squares, confirmed in 18; 8 nests (all years), eggs 7-23 Jul, yg 17 Jul-19 Aug, Port Howe (J Taylor); (Distribution) at Cadman Cor, Murray rd, Bayfield, Cape Spear, Port Elgin, Shinimicas.

History: (E) 1 Jul-28 Sep, max 12.

Changes: perhaps decline since 1960s, occurrence always somewhat erratic; BBS indices, nearby rtes +8.0%* (14), Ecozone +4.1%* (85).

Blue-winged Warbler *Vermivora pinus* [BwWa]

Fundy

Present Status: [none reported nr Fundy].

Strait

Present Status: vagrant, 18-19 Sep 1993, Cape Jourimain NWA (ST, in NB Nat).

Notes: [only 3 sight records in N.B. through 1975 (Squires 1976), vs 23 reports in N.S. 1963-84, mostly in fall (Tufts 1986)].

Tennessee Warbler *Vermivora peregrina* [TeWa]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 16 May, mean 24 May (17 yr); max 21 (1985, fewer after 1993); latest song 20 July, seen 25 Sep 1998; (Atlas) in all squares, breeding confirmed in 3; (Distribution) very widely in mixed-conifer woodlands, e.g. Beaumont to Aboushagan rd to Salem to Maccan to R Hebert.

History: (M) few noted before 1964 [sightings only?], & little time in suitable habitat later, max 7 (in late Aug, = seen); (B) "Locally fairly common", first identified 1952 [after he monitored spraying (against budworm) in north N.B. that June]; (E) arrival, earliest 19 May, mean 21 May (4 yr), max 9; last noted 8 Sep.

Strait

Present Status: fairly common summer resident; (E) 28 May-24 Jul; max 8 (1987, fewer later); (Atlas) in all squares, confirmed in 7; (Distribution) widely in mixed-conifer woodlands, Drisdelle to Chapman Cor to Bayfield to Timber R to Tidnish R.

History: (E) 14 Jul 1967 (1), few visits to woodlands in season then.

Changes: numbers higher 1960-90 when spruce budworm abundant, obvious decrease with budworm decline after 1993; BBS indices, nearby rtes -4.2%* (14), Ecozone +0.2% (77).

Orange-crowned Warbler *Vermivora celata* [OcWa]

Present Status: vagrant: 22 Nov 1994, Aulac (ST & R Doiron, in NB Nat); 12 Oct 1993, 6 Oct 1994, Cape Jourimain NWA.

Notes: [not reported in N.B. through 1975 (Squires 1976), but several recent records; 54 records in N.S. 1951-85, most in fall (Sep-Dec) (Tufts 1986)]; [perhaps usually missed among 'confusing fall warblers'? Never seen (here) by E.M.or B].

Nashville Warbler *Vermivora ruficapilla* [NaWa]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 16 May, mean 21 May (12 yr); max 4; latest (song) 17 Jul, (seen) 29 Aug; (Atlas) in nrly all squares, breeding confirmed in 6; (Distribution) widely in woodlands, Beaumont to Fairfield to Aboushagan rd to Amherst Pt MBS to Minudie.

History: (M) nr Memramcook in 17 yr 1929-80, 5 May-14 Sep, max 4; (B) "Fairly common summer resident", 12 May-17 Sep; (E) 12 May-26 Sep, max 7.

Strait

Present Status: fairly common summer resident; (E, others) 30 May-6 Sep; max 3; straggler 11 Oct 1993 (ST, in NB Nat); (Atlas) in most squares, confirmed in 2; (Distribution) in woodlands nr Drisdelle, Blacklock rd, Bayfield, Malden, Tidnish R.

History: (E) 12 Jun-10 July, max 5.

Changes: no evidence of status change; BBS indices, nearby rtes -1.7% (13), Ecozone -2.4%* (87).

Northern Parula (Warbler) *Parula americana* [NoPa]

Fundy

Present Status: common summer resident; (E) arrival, earliest 11 May, mean 19 May (17 yr); max 8; departure, mean 24 Aug (8 yr), latest 8 Sep; (Atlas) in all squares, confirmed breeding in 7; (Distribution) very widely in conifer woodlands, e.g. Beaumont to Breau Crk (upper) to Cookville to Fenwick to Maccan to R Hebert.

History: (M) nr Memramcook, little time spent in suitable forest habitats, half his (few) records in special study 1980; (B) "Uncommon summer resident", local, 14 May-14 Sep; (E) arrivals, earliest 19 May, mean 21 May (6 yr), max 5, latest 3 Oct.

Strait

Present Status: common summer resident; (E) 18 May-5 Aug; max 6; (Atlas) in all Atlas squares, breeding confirmed in 11; (Distribution) very widely in conifer woodlands, e.g. Poucette L to Murray rd to Cape Jourimain NWA to Port Elgin to Tidnish R to Amherst Shore Prov Park.

History: (E) 26 May 1966 (1); little time in woods there then.

Changes: no strong evidence for status change, possibly increase; BBS indices, nearby rtes +1.2% (14), Ecozone +1.8%* (77).

Yellow Warbler *Dendroica petechia* [YWar]

Fundy

Present Status: common summer resident; (E) arrival, earliest 11 May, mean 20 May (20 yr); max 22 (6 Jul 1991, next 13+); departure, mean 18 Aug (14 yr), latest 6 Sep 1997; (Atlas, MNRS) breeding confirmed in all squares; 24 nests (all years), eggs 10 Jun-2 Jul, yg 21 Jun-20 Jul (var obs); (Habitats) very widely in riparian and other edges, also suburban areas.

History: (M) nr Memramcook in 31 yr 1929-79, arrival, earliest 13 May, mean 20 May (22 yr), max 10, departure, mean 22 Aug (15 yr), latest 17 Sep 1971; (P) arrival 19 May 1938; (B) "Common summer resident", 13 May-22 Aug, max 5+; (E) arrival, earliest 19 May, mean 24 May (9 yr), max 8, departure, mean 22 Aug (11 yr), latest 8 Sep.

Strait

Present Status: common summer resident; (E) arrival, earliest 18 May, mean 27 May (8 yr); max 17; departure, mean 14 Aug (4 yr), latest 24 Aug; (Atlas, MNRS) confirmed in all squares; 2 nests, yg 18-21 Jul, Port Howe, Beckwith (J Taylor); (Distribution) widely in wood-edges and riparian areas, Drisdelle to Murray Cor to Cape Jourimain NWA to Port Elgin to Amherst Shore Prov Park.

History: (E) 26 May-26 Aug, max 3.

Changes: no convincing changes in status; BBS indices, nearby rtes +0.6% (14), Ecozone +1.3% (85).

Chestnut-sided Warbler *Dendroica pensylvanica* [CsWa]

Fundy

Present Status: uncommon/fairly common summer resident; (E) arrival, earliest 16 May, mean 24 May (14 yr); max 7; latest (song) 25 Jul; (Atlas, MNRS) in all squares, confirmed breeding in 5; nest (2nd or re-nesting?), eggs 7-17 Jul, yg 22-27 Jul 1967, W Amherst (W McNutt); (Distribution) widely in wood-edges and shrubby areas, Beaumont to Memramcook E to Cookville to Maccan R to Minudie.

History: (M) only 7 times nr Memramcook in 6 yr 1949-80, max 3 [sightings only?]; (B) "Uncommon summer resident", 24 May-1 Aug; (E) most years, arrival, earliest 19 May, mean 20 May (4 yr), max 4, latest 20 Aug.

Strait

Present Status: uncommon/fairly common summer resident; (E) 29 May-29 Jul, max 4; (Atlas) in all squares, confirmed in most; (Distribution) widely in wood-edges and shrubby areas, Drisdelle to Shemogue to Bayfield to Baie Verte and Tidnish R.

History: (E) 10 Jun-1 Jul 1962, max 6.

Changes: no clear evidence of status change; BBS indices, nearby rtes -2.2% (14), Ecozone -1.1% (82).

Magnolia Warbler *Dendroica magnolia* [MaWa]

Fundy

Present Status: common summer resident; (E) arrivals, earliest 14 May, mean 22 May (18 yr); max

18; latest (song) 19 Aug, (seen) 22 Sep; (Atlas) in all squares, breeding confirmed in most; (Habitats, Distribution) widely in conifer and mixed woodlands, e.g. Beaumont to Cape Maringouin to Aboushagan rd to Jolicure to Amherst Pt MBS to R Hebert.

History: (M) nr Memramcook in 21 yr 1930-80, arrivals, earliest 8 May, mean 21 May (14 yr), max 8; latest 29 Sep; (B) "Very common in suitable habitat", 15 May-14 Sep, nest - eggs 12 Jun 1948, noted widely; (E) arrivals, earliest 17 May, mean 21 May (6 yr), max 13; latest 14 Sep.

Strait

Present Status: common summer resident; (E) 17 May-6 Sep; max 23+; (Atlas, MNRS) in all squares, confirmed in most; nest, yg 21 Jul 1965, nr Tidnish (G Johnstone); (Habitats, Distribution) widely in conifer and mixed woods, e.g. Drisdelle to Duguay Pt to Stillman rd to Bayfield to Tidnish R to Amherst Shore Prov Park.

History: (E) 26 May-10 Jul, max 6.

Changes: no evidence of status change; BBS indices, nearby rtes +0.5% (14), Ecozone +1.9%* (88).

Cape May Warbler *Dendroica tigrina* [CMWa]

Fundy

Present Status: uncommon summer resident and transient; (M,E, others) recent data sparse (partly) because aging observers can't hear its high-pitched songs; 10 May 1984 (ST, in NSB)-26 Jul, max 3; straggler 8 Dec 1985 (1), Memramcook (M, in NB Nat); (Atlas) in 7 squares, breeding confirmed nr Memramcook E; (Distribution) most records in spring migration nr Sackville.

History: (M) nr Memramcook in 10 yr 1934-80, arrival, earliest 13 May, mean 19 May (6 yr), max 7, latest 17 Sep 1971; (B) not noted; (E) 17-31 May, 5 Jul, 6 Aug-21 Sep, max 2; (T) "benefitted from the spruce budworm infestation... regularly noted in summer [1970s] in suitable habitat".

Strait

Present Status: scarce summer resident; (E) data scarce, as above; 26 Jul 1988 (m), Square L.

History: (E) 11 Aug 1979 (m), Timber R.

Notes: a 'budworm follower', probably more common during SE N.B. outbreak in 1974-80s than earlier or later; near-absence of budworm after 1993 may explain part of recent scarcity of records (plus hearing loss).

Changes: data too sparse for conclusive trends; BBS indices, nearby rtes -5.1% (11), Ecozone 0% (60).

Black-throated Blue Warbler *Dendroica caerulescens* [BtBW]

Fundy

Present Status: uncommon summer resident; (E) 11 May-16 Jul, max 3; (Atlas) found in 6 squares (only 'possible' breeding); (Distribution) broad-leafed woods nr Breau Crk (upper; most), Aboushagan rd, Amherst Pt MBS, Little Forks.

History: (M) nr Memramcook, 15 May 1972 (1); (B) none reported; (E) 25 May 1963 (1), Fairfield; 14 Jun 1966 (1) Fenwick; (T) Wood Pt 20 May 1974 (m); only 1 banded at Tintamarre NWA 1972-78.

Strait

Present Status: scarce summer resident; (E) Tidnish R 6 Sep 1986; (Atlas) nr Cape Jourimain NWA (probable breeding); [no earlier records].

Changes: data too sparse for detecting trends.

Yellow-rumped (Myrtle) Warbler *Dendroica coronata* [YrWa; MyWa]

Fundy

Present Status: common summer resident and transient, a few linger into winter; (E) arrival, earliest 24 Apr, mean 4 May (20 yr); max (Apr-May) 100+, 11 May 1985, (Jun-Jul) 8+, (Aug-Oct) 70, 28 Aug 1982; departure, mean 4 Oct (12 yr), latest 13 Oct; (Atlas) in all squares, confirmed in most; (Habitats) widely in conifer/mixed forest and edge habitats, incl urban areas in migrations; (CBCs) Sackville 4 yr (max 2); Amherst 3 yr (max 2).

History: (M) nr Memramcook in 43 yr 1929-80, arrival, earliest 18 Apr 1960, mean 30 Apr (27 yr), max (Apr-May) 25 [exceptional 300+, May 1967], (Jun-Jul) 4, (Aug-Oct) 40, departure, mean 13 Oct (20 yr), latest 25 Oct, stragglers to Nov 4 yr, Dec 1 yr; (B) "Very common in suitable habitat... Especially common during spring migration", 4 May-13 Oct; (E) arrival, earliest 3 May, mean 6 May (8 yr), max 20+, departure, mean 12 Oct (12 yr), latest 22 Oct; (Others) lingering late Nov-early Dec 1977 (1), Amherst, arrival 14 Apr 1979 (1), J Lusby msh (ST, CD, in NSBSN).

Strait

Present Status: common summer resident, some probably over-winter [few visits to habitat then in most years]; (E) 7 May-14 Oct, stragglers reported to Feb/Mar; max 20; (Atlas) in all squares, confirmed breeding in most; (Habitats, Distribution) widely in forest and edge habitats, stragglers mostly at bayberry clumps adjacent to spruce stands; Drisdelle to Murray rd to Cape Tormentine to Cape Spear to Port Elgin to Amherst Shore Prov Park; wintering mainly nr coasts - where bayberry more common; (CBCs) Cape Tormentine all 20 yr (max 162, 1992, all recent yrs <40).

History: (E) 26 May-4 Oct, max 14; (Others) 3-10 Mar 1973 (max 2), 22 Jan 1974 (4), 'a lot' wintered 1979-80, Cape Tormentine (ST, in NB Nat); (CBCs) Cape Tormentine 14 yr (max 179, 1979, most <25).

Notes: later arrival and earlier departure may indicate smaller numbers recently; fall passage decreased after early 1990s; lingering into winter first shown 1961; BBS indices, nearby rtes +2.8%* (14). Ecozone +4.6%+ (87).

Black-throated Green Warbler *Dendroica virens* [BtnW]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 10 May, mean 18 May (17 yr); max 11; departure, mean 12 Sep (3 yr), latest 18 Sep; (Atlas) in all squares but one, breeding confirmed in 4; (Distribution) widely in woodlands, e.g. Beaumont to Cape Maringouin to Aboushagan rd to Amherst Pt MBS to Minudie and Fenwick.

History: (M) in 12 yr 1929-50, vs. 10 yr 1953-80 (little time in habitat); arrival, earliest 9 May, mean (13 yr) 19 May; max 6 (3x); latest 1 Oct 1931; (P) arrival 15 May 1944, Midgic; (B) "Fairly common summer resident", 8 May-17 Sep; (E) arrivals, earliest 18 May, mean 22 May (7 yr), max 12 (2x); latest 26 Sep.

Strait

Present Status: fairly common summer resident; (E) 18 May-6 Sep, max 6+; (Atlas) in all squares, confirmed in 8; (Distribution) widely in woodlands, e.g. Drisdelle to Amos Pt rd to Bayfield to Baie Verte to Tidnish R.

History: (E) 14 Jun 1966 (1), Tidnish R.

Changes: no good evidence of changed status; BBS indices, nearby rtes -3.1% (14), Ecozone +0.8% (86).

Blackburnian Warbler *Dendroica fusca* [BlbW]

Fundy

Present Status: uncommon summer resident; (E) in 7 yr, 23 May-9 Sep, max 2; [McManus and Erskine, both with hearing loss latterly, could not hear species' song in 1990s]; (Atlas) in most squares, confirmed breeding in 7; (Distribution) mostly in conifer woods, Memramcook E to Cape Maringouin to Breau Crk (upper) to Minudie.

History: (M) nr Memramcook only 1980 [song not recognized earlier?], 24 May-6 Jun, max 2; (B) "Rare summer resident", 24 May-28 Aug, nr Sackville and Beech Hill; (E) 21 May-2 Sep, max 3, nr Cape Maringouin, Frosty Hollow, Sackville, Breau Crk (upper), Fenwick.

Strait

Present Status: uncommon summer resident; (E, others) 21 May 1984, Port Howe (J Taylor, in NSB); 19 Jun 1988, nr Drisdelle; [no earlier records]; (Atlas) in most squares, confirmed in 7.

Changes: given detection difficulty recently, apparent 'unchanged' status may suggest increase - or recovery after budworm spraying? BBS indices, nearby rtes -1.2% (14), Ecozone +4.8%* (70).

Yellow-throated Warbler *Dendroica dominica* [YtWa]

Fundy

Present Status: fall vagrant, 28 Aug 1991, Sackville (C Ellingwood, in NB Nat).

Strait

Present Status: fall vagrant, 3 Aug 1991, Upper Cape (R Naylor and E Hagan, in NB Nat); 18 Sep 993, Cape Jourimain NWA (ST, in NB Nat), bothgles.

Notes: [rare vagrant in N.S., and rarer in N.B. (Tufts 1986, Squires 1976), most reported in fall; normal breeding range from New Jersey south].

Pine Warbler *Dendroica pinus* [PiWa]

Fundy

Present Status: late fall visitant, sometimes lingering to winter at feeders; (E, others) 26 Nov 1983-15 Jan 1984 (1-2), Amherst (CD, in NSB, photos); Sackville 5 Dec 1999 (1); 1 km N across town (same bird?) mid-Dec 1999-Mar 2000 (P Black); [report 29 Jul 1981, Jolicure (B Dalzell, in NB Nat), seems seasonally unlikely, perhaps date error in publication?]; (CBCs) Sackville 1988 (2), 1990 (2), 1991 (3), 1996, 1999; Amherst 1983 (2), 1992.

History: all singles, (M) nr Memramcook, 6 Nov 1968; (T) 5 Nov 1980, Sackville; 10,16 Dec 1980, Amherst;(CBCs) Sackville 1974.

Strait

Present Status: (only on CBCs) Cape Tormentine 1996, 1997 (singles).

Notes: [breeding in N.B. first detected 1987 (Atlas), nearest detection Minto, 120 km W of this rea]; probably expansion of breeding into N.B. provided stragglers for recent increase here, but oo few data for meaningful trend.

(Yellow) Palm Warbler *Dendroica palmarum* [YPWa]

Fundy

Present Status: uncommon summer resident, fairly common spring and uncommon fall transient; E) only 14 dates in 11 years, 7 May-26 Sep, max 3; (Others) 2 May 1992 (Eddy msh, D Currie, in NSB); (Atlas) in 6 squares, breeding confirmed in 3; (Distribution) mostly in inland bogs, nr Westcock, Sackville, Breau Crk (upper), Aboushagan rd, Jolicure, Long L, Amherst Pt MBS.

History: (M) nr Memramcook frequently 1929-74, arrival, earliest 20 Apr, mean 30 Apr (19 yr); max, spring 4, fall 5; latest 29 Oct; noted all months, Apr-Oct; nest, yg hatching 16 Jun 1930; (B) Very common summer resident and transient... ranks with the Myrtle Warbler [!]... throughout... in suitable habitat", nest nr Rockport, eggs 9 Jun, hatched by 17 Jun 1953; (E) most years, but only 13 dates; arrival, earliest 29 Apr, mean 4 May (4 yr), max 3, latest 30 Sep; (T, thers) "Common transient and uncommon summer resident" in 1970s; straggler 3 Nov 1978 (1), Sackville (ST, in NSBSN).

Strait

Present Status: [no reports nr Strait (fewer bogs there?)].

Changes: formerly more common, decrease perhaps from drainage or destruction of most ccessible bog habitats?

Bay-breasted Warbler *Dendroica castanea* [BbWa]

Fundy

Present Status: uncommon summer resident; (E) arrivals, earliest 22 May, mean 27 May (8 yr); max 2; latest 16 Sep; [McManus and Erskine, both with hearing loss, detected few of this species by song in recent period]; (Atlas) in 12 squares, breeding confirmed in 4; (Distribution) widely in conifer-mixed woodlands, Memramcook E to Cape Maringouin to Aboushagan rd to Amherst Pt MBS to Minudie to Little Forks.

History: (M) nr Memramcook, in only 7 yr 1930-80 [only sightings? - little budworm here before 1974] 18 May-27 Aug, max 6; (B) "Fairly common summer resident", max 8, earliest 21 May; (E) in 9 years, 19 May-6 Sep, max 2.

Strait

Present Status: uncommon summer resident; (E) 27 May 2000, Amherst Shore Prov Pk; 11 Jun 1987, S of Bayfield; (Others) 29 May 1994 (3), Chapman Sett, J Taylor (in NSB); (Atlas, MNRS) in 16 squares, confirmed in 6; 2 nests, ads visiting 9-10 Jul, Port Howe (J Taylor).

History: [no earlier records! = little time spent in woods during song period then].

Changes: populations probably rose in 1960s, peaked in 1970s, and fell by 1990s, tracking budworm densities; BBS indices, nearby rtes -4.1% (13), Ecozone +1.2% (70).

Blackpoll Warbler *Dendroica striata* [BlpW]

Fundy

Present Status: uncommon transient; (E) 3 dates, 22-30 May, all single males; [McManus's and Erskine's hearing losses precluded detecting many songs of species recently]; (Atlas) only one sighting ('possible'), others in migration periods; (Distribution) nr Sackville, Jolicure, Maccan.

History: (M) nr Memramcook, on 14 dates in 10 yr 1932-73, 16 May-27 Jun, only fall date 16 Oct 1932, all singles; (B) "Rare transient", max 7, 23 May-5 Jun; (E) 7 dates, 21 May-5 Jun, max 2; 3 Oct 1965, 1 Oct 1979.

Strait

Present Status: [no reports nr Strait].

Changes: no strong evidence of status change, few detected ever.

Black-and-White Warbler *Mniotilta varia* [BaWW]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 11 May, mean 20 May (14 yr); max 6+ (17 May 1986); latest (song) 8 Aug, (sight) 7 Sep; (Atlas, MNRS) in all squares, breeding confirmed in 10; nest, eggs 22 Jun-3 Jul, yg 8-17 Jul 1967, Amherst Pt MBS (W McNutt); (Habitats, Distribution) widely but sparsely in broad-leafed and mixed woodlands.

History: (M) nr Memramcook in 12 yr 1929-86, arrival, earliest 3 May, mean 19 May (9 yr); max 2; latest 28 Jul; (B) "Uncommon summer resident", 24 May-14 Sep; (E) arrival, earliest 11 May, mean 19 May (9 yr), max 4, latest 21 Sep.

Strait

Present Status: uncommon summer resident; (E) 27 May-6 Sep; max 3 (6 Sep 1986); (Atlas) in all squares, confirmed in 8; (Distribution) in woodlands, Drisdelle to Square L to Hardy rd to Anns Acres to Tidnish R to Amherst Shore Prov Park.

History: (E) 14 Jun 1966, Tidnish R [little time spent in woods nr Strait then].

Changes: no clear evidence of status change; BBS indices, nearby rtes +1.2% (14), Ecozone +0.6% (80).

American Redstart *Setophaga ruticilla* [AmRe]

Fundy

Present Status: common summer resident; (E) arrivals, earliest 11 May, mean 20 May (19 yr); max 15+; departure, mean 25 Aug (9 yr), latest 5 Sep; (Atlas, MNRS) confirmed breeding in all squares; 6 nests (all years), eggs 16-27 Jun, yg 25 Jun-13 Jul, Grande Anse, Sackville, Amherst Pt (G Burns, D Kimball, W McNutt); (Distribution) very widely throughout area all summer, in woodlands, edges, gardens.

History: (M) nr Memramcook 1941-80, arrivals, earliest 16 May, mean 25 May (7 yr); max 7; departure, mean 30 Aug (7 yr), latest 9 Sep; (B) "Very common summer resident", widespread, 21 May-15 Sep; (E) seen regularly, 19 May-18 Sep, max 12.

Strait

Present Status: common summer resident; (E) 18 May-24 Aug; max 7+; (Atlas) found in all and confirmed in nrly all squares; (Distribution) widely, Drisdelle to Bayfield, Port Elgin to Amherst Shore Prov Park.

History: (E) 26 May-26 Jul, max 4+.

Notes: no obvious change in status; one of the most common warblers throughout period and area; BBS indices, nearby rtes -0.7% (14), Ecozone +0.6% (90).

Worm-eating Warbler *Helmintheros vermivorus* [WeWa]

Present Status: vagrant (hypothetical); (Others) 18 Sep 1993, Cape Jourimain NWA (C Colpitts, in NB Nat).

Notes: [not accepted in N.B. list as seen by only 1 observer - though with full description (N.B. Bird Rec Ctee, in NB Nat)]; [no N.B. records through 1975; 12 in N.S. through 1984, only 3 in fall (Tufts 1986); this record was unusual both in place and date].

Ovenbird *Seiurus aurocapillus* [Oven]

Fundy

Present Status: common summer resident (in habitat); (E) arrival, earliest 11 May, mean 17 May (14 yr), max 32; latest (song) 8 Aug, (seen) 8 Sep; (Atlas, MNRS) in all squares, breeding confirmed in 5; nest, eggs 19 Jun, Walker rd (D Kimball); (Habitat, Distribution) widely in mixed and broad-leafed woodlands, e.g. Memramcook E to Rockport to Aboushagan rd to Jolicure to Amherst Pt MBS to R Hebert to Little Forks.

History: (M) nr Memramcook only 6 dates [all singles, presumably sightings only?] until 1980, when 9 dates, 15 May-13 Jun, max 7; (B) "Irregular probable summer visitant', only 2 records, 24 May 1948, 6 Jun 1950 [sightings only? - but area studied mostly open lands]; (E) annually, 21 May-2 Sep, max 9; (T) "Uncommon [!] summer resident", noted regularly [in Boyer's limited area].

Strait

Present Status: common summer resident (in habitat), (E, others) 14 May 1988 (Port Howe; J Taylor, in NSB) -26 Jul, max 15; (Atlas) in all squares, confirmed in 6; (Habitats, Distribution) widely in mixed and broad-leafed woodlands, Drisdelle to Duguay Pt to Murray rd to Bayfield to Port Elgin to Tidnish R to Amherst Shore Prov Park.

History: (E) 12 Jun-10 Jul, max 2.

Notes: data suggest substantial increase (likely in part from increased broad-leafed cover after many conifers killed by budworm 1974-75); apparent failure of McManus and Boyer to note songs [very obvious!] reduced confidence in comparing earlier vs. recent data; BBS indices, nearby rtes -0.8% (14), Ecozone +0.4% (85).

Northern Waterthrush *Seiurus noveboracensis* [NoWa]

Fundy

Present Status: uncommon spring transient and scarce summer resident; (E) arrival, earliest 6 May, mean 20 May (9 yr); max 2; latest (song) 7 Aug; (Atlas) found in 4 Atlas squares, no confirmed breeding; (Distribution) nr Sackville, Aboushagan rd, Amherst Pt MBS.

History: (M) nr Memramcook, only 4 records in 4 yr 1950-67, all 20-29 May; (B) only records, 18 May 1948, Sackville; 10 Jun 1948, Wood Pt; (E) spring, earliest 12 May, mean 19 May (4 yr), max 2; summer, 7-17 Jun 1960, max 1, Sackville, Cookville.

Strait

Present Status: uncommon summer resident; (E) 28 May-11 Jun, max 4 (migrants?); (Atlas) found, and breeding confirmed nr Northport and Beckwith; (Distribution) also nr Drisdelle, Poucette L, Square L, Bayfield.

History: (E) 26 Jul 1980 (1), Cape Jourimain NWA.

Changes: too few records for convincing trend, no evidence of changed status; BBS indices, nearby rtes +1.1% (10), Ecozone +0.7% (70).

Mourning Warbler *Oporornis philadelphia* [MoWa]

Fundy

Present Status: scarce local summer resident; (E) arrival, earliest 31 May, mean 1 June (4 yr); max 3; latest (song) 14 Jul; (Atlas) in 7 squares, breeding confirmed nr Memramcook E; (Distribution) also nr Beaumont, Frosty Hollow, Sackville, Fairfield, Breau Crk (upper).

History: (M) none until 1965, only 2 later; (B) none found; (E) none in 1960s; 1 Jul 1978, 31 May and 16 Jun 1980, singles.

Strait

Present Status: scarce local summer resident; (E) 25 Jun 1984 (1), 3 Jun 1989 (2); [no earlier records]; (Atlas) found only in 2 squares, nr Melrose and Northport; (Distribution) also nr Poucette L, Tidnish R.

Notes: too scarce to show trends convincingly [though common just across Strait in P.E.I.]; probably increased after budworm incursion of 1974-75 opened conifer stands and allowed hardwood shrubberies to expand; BBS indices, nearby rtes +7.9% (11), Ecozone +2.3% (70).

Common Yellowthroat *Geothlypis trichas* [CoYe]

Fundy

Present Status: common summer resident, a few linger through fall; (E) arrivals, earliest 12 May, mean 19 May (19 yr); max 24; departures, mean 25 Sep (8 yr), latest 6 Oct; (Atlas, MNRS) in all squares, breeding confirmed in nearly all; nest, eggs, 17 Jun, Goose L rd (D Kimball); (Habitats) very widely in woodland openings, edges, shrubberies (both damp and dry), throughout region; (CBCs) Sackville 1998 (1).

History: (M) nr Memramcook in 41 yr 1929-80, arrivals, earliest 4 May, mean 20 May (23 yr), max 12, departures, mean 30 Sep (15 yr), latest 19 Oct; (B) "Very common summer resident", 18 May-late Sep, max 10; (E) arrivals, earliest 12 May, mean 19 May (7 yr), max 35, departures, mean 28 Sep (11 yr), latest 7 Oct; (CBCs) Amherst 1973 (1).

Strait

Present Status: common summer resident; (E, others) straggler 29 Apr 1991 (1), Cape Jourimain NWA (ST, in NB Nat); 18 May-late Sep; max 35; (Atlas, MNRS) breeding confirmed in all squares; 8 nests (all years), eggs 9 Jun-19 Jul, yg 2-29 Jul, Amherst Pt, Tidnish, Port Howe (var obs); (Habitats) very widely in shrubby habitats throughout region.

History: (E) 10 Jun-28 Sep, max 5+; (CBCs) Cape Tormentine 1973 (4).

Changes: no clear evidence of status changes; BBS indices, nearby rtes -0.6% (14), Ecozone +0.6% (90).

Wilson's Warbler *Wilsonia pusilla* [WiWa]

Fundy

Present Status: uncommon spring transient; scarce summer resident; (E, others) 15 May 1999 (T Paquet, in NSB)-4 Aug (8 yr); (Atlas) found (possible breeding only) in 4 squares; (Distribution) nr Frosty Hollow, Westcock, Sackville, Aboushagan rd, Jolicure, Amherst.
History: (M) nr Memramcook 13 May-7 Jun, in 11 yr 1947-80, max 3+; (B) 3 records 18 May-4 Jun, nr Westcock, Cookville, Jolicure, & one 15 Sep 1955 at Westcock; (E) 9 dates 20 May-18 Sep; (T) "Noted regularly in [1970s] ... migrations" and "in summer in many locations".

Strait
Present Status: scarce summer resident; (E, others) 20 May 1984 (Port Howe, J Taylor, in NSB)-21 Jun; [no earlier reports]; (Atlas, MNRS) in 7 squares, breeding confirmed nr Melrose - nest, eggs 2 Jul (B Murphy); (Distribution) also nr Poucette L, Tidnish R, Northport.

Changes: too few data to show status clearly, no change evident; BBS indices, nearby rtes +2.8% (9), Ecozone +5.5%* (47).

Canada Warbler *Wilsonia canadensis* [CaWa]

Fundy
Present Status: fairly common summer resident; (E,M) arrival, earliest 22 May, mean 30 May (8 yr); max 4; latest 28 Aug; (Atlas) in 13 squares, confirmed breeding in 6; (Distribution) in mixed woodlands, Beaumont to Johnson L to Fairfield to Cookville to Ft Lawrence to Maccan to R Hebert.
History: (M) in 6 yr 1929-80, 26 May-12 Jul; 19 Sep 1965; all singles; (B) never noted; (E) 10 Jun-6 Sep; max 4 (1960s), 11 (1970s); (T) 89 banded 1972-78 at Tintamarre NWA.

Strait
Present Status: fairly common summer resident; (E) 30 May-29 Jul, max 4+; (Atlas) in 17 squares, confirmed in 10; (Distribution) nr Drisdelle, Chapman Cor, Amos Pt rd, Murray rd, S of Bayfield.
History: (E) 13 Jun 1967 (1), Tidnish R; little time spent in suitable habitat then.

Notes: noted less often in past (perhaps song not always recognized then); increase in 1970s corresponded to increase in broad-leafed woodland (after 1974-75 conifer kill by budworm); but compare BBS indices, nearby rtes -4.9%* (13), Ecozone -5%+ (70).

Yellow-breasted Chat *Icteria virens* [YbCh]

Fundy
Present Status: fall vagrant; (Others) 30 Nov-4 Dec 1991, Sackville (C Ellingwood, in NB Nat); 12 Dec 1998, Sackville w-f park (G Finney, in NB Nat).
*History: (*Others) 8 and 10 Nov 1971, Tantramar msh (Patterson, in NB Nat); 22 Sep 1974, Long L, Tintamarre NWA (G Burns, in T), all singles.

Notes: [frequent fall wanderer, several records each year since 1950s, in N.B. and N.S. (Squires 1976, Tufts 1986)].

Summer Tanager *Piranga rubra* [SuTa]

Present Status: vagrant; 27 Jun 2000 (subad m), Sackville (R Miller, in NB Nat); (Others) 21 May 1986 (2 m), Cape Jourimain NWA (photo'd; S & J Lounsbury, in NB Nat).

Notes: [reported annually, mostly in spring, in N.S., less often in N.B., in recent decades]; might be expected here more often.

Scarlet Tanager *Piranga olivacea* [ScTa]

Fundy

Present Status: irregular spring and summer visitant; (E, others) 26 Aug 1984 (f or im), Amherst Pt MBS; 10 May 1985 (1), Sackville (C MacKinnon, in NB Nat); 27 May 1990 (m, singing), Fairfield.

History: (M) nr Memramcook 2-6 Nov 1948 (winter m, at feeder); 25 May 1967 (m); 22 May and 1 Jun 1974 (m); (T) "Rare transient... almost annually... Most records... males in late May or early June... fall records... Oct. 13/72 and Sept. 14-18/76"; (Others) nr Amherst 23 May 1967 (E Lowerison, in NSBSN); "male was found dead... Sackville on May 30, 1970" (B Addendum).

Strait

Present Status: vagrant; (Others) 15 May 1997 (f), Cape Jourimain NWA (C Adam, in NB Nat).

History: 29 May 1977 (1), Northport (R MacNeil).

Notes: [nearest breeding (in Atlas) NW of Moncton, 80 km NW of area; no breeding nr Strait shores anywhere].

Dickcissel *Spiza americana* [Dick]

Fundy

Present Status: fall vagrant, all recent reports at feeders, some lingering to CBCs; (E, others) 8 Nov-19 Dec, max 2; (CBCs) Sackville 1989 (2, since early Nov, Finneys), 1999 (1); Amherst 1987 (1), 1989 (2).

History: (M) 2 Oct 1966, Memramcook (Squires 1976); 14 Sep 1969, Memramcook L (no details); (T) 29 Oct-12 Nov 1973 (1), 2 Dec 1975 (2), Sackville feeders; (Others) 12 Apr 1967, Amherst (E Lowerison, in NSBSN), only spring report.

Strait

Present Status: fall vagrant; (Others) fall 1992, Cape Tormentine (ST, in NB Nat).

History: (CBCs) Cape Tormentine 1973 (1).

Notes: [noted in N.B. since 1951, annually in fall since 1962]; all nearby records recent, by increased vagrancy or improved detection.

Eastern (was Rufous-sided) Towhee *Pipilo erythrophthalmus* [EaTo]

Fundy

Present Status: fall vagrant; (E, others) Sackville, 1 Nov 1996 (m) (M Bunker); Dec 1999-Jan 2000 (2-3) (var obs, IDs likely but never confirmed by 'experts').

History: (Others) first report Dec 1963, Amherst (E Coates, in T); spring 20 May 1974; fall 13 Oct-Dec (1963-80); (Distribution) Wood Pt, Westcock, Amherst, Amherst Pt MBS; (CBCs) Sackville 1971 (1, at feeder since Nov).

Strait

Present Status: [no recent records].

History: (CBCs) Cape Tormentine 1976 (1, at feeder 3 wks).

Notes: [not known to have bred nearer than Maine, but straying to Maritimes annually since 1950s, a few wintering]; local records fit wider pattern, all being recent.

American Tree Sparrow *Spizella arborea* [ATSp]

Fundy

Present Status: fairly common transient and winter resident; (E) 26 Oct-1 May, max (Oct-Nov) 5, (Dec-Feb) 14+, (Mar-May) 12; (Distribution) mostly at feeders, at Memramcook, Frosty Hollow, Westcock, Sackville, White Birch rd, Amherst Pt MBS; (CBCs) Sackville all 20 yr (max 367, 1985; 10 yrs >90); Amherst all 19 yr (max 264, 1985; 14 yr >45).

History: (M) nr Memramcook, in 30 winters 1929-30 to 1977-78; fall arrival, earliest 10 Oct 1968, mean 29 Oct (14 yr), max (Oct-Nov) 50, (Dec-Feb) 25, (Mar-May) 12, spring departure, mean 21 Apr (20 yr), latest 15 May; (B) "Fairly common transient and winter resident", 16 Oct-1 May, max 25; (E) 2 Nov-25 Apr, max 10; (Others) none after 20 Nov 1980, Amherst (CD, in NSB); (CBCs) Sackville 17 yr (max 87, 1976); Amherst 14 yr (max 43, 1973).

Strait

Present Status: uncommon winter resident; (E) CBCs only, 16-22 Dec, max 7; (CBCs) Cape Tormentine all 20 yr (max 121, 1994).

History: (Others) 29 Jan 1961 (1), Baie Verte (A Goodwin, in Nat News); 12 Apr 1980 (25+), Cape Jourimain NWA (ST, in NSBSN); (CBCs) Cape Tormentine 19 yr (max 132, 1976).

Changes: no clear status change (CBC increases nr Fundy parallel increases in observers and feeders).

Chipping Sparrow *Spizella passerina* [ChSp]

Fundy

Present Status: fairly common summer resident; (E) arrival, earliest 27 Apr 2001, mean 8 May (18 yr); max 14; departure, mean 19 Sep (5 yr), latest 26 Sep, straggler 30 Oct 1993; [never seen here in winter]; (Atlas, MNRS) breeding confirmed in all squares; 11 nests (all years), eggs 26 May-20 Jul, yg 9 Jun-3 Aug (var obs); (Habitats, Distribution) widely, in suburban and edge habitats (seldom in woods), Memramcook E to Cape Maringouin to Sackville (most) to Cookville to Maccan to Minudie; (CBCs) Amherst 1996 (1), 1998 (6) [neither marked as unusual - perhaps errors for ATSp?].

History: (M) nr Memramcook in 31 yr 1928-75; arrival, earliest 25 Apr 1971, mean 8 May (18 yr), max 20; departure, mean 1 Oct (6 yr), latest 10 Oct, stragglers to 28 Oct 1948, 22 Oct 1967; [none in winter]; (B) "Uncommon summer resident", 8 May-15 Oct, max 7, nest bldg Sackville 24 May 1948; (E) arrival, earliest 2 May, mean 11 May (7 yr), max 9; departure, mean 5 Oct (6 yr), latest 19 Oct; (Others) early arrival 23 Apr 1976 (1), Amherst (CD, in NSBSN); (CBCs) Sackville 1974 (1), Amherst 1974 (2) [neither noted as unusual - maybe errors for ATSp?].

Strait

Present Status: fairly common summer resident; (E, others) 9 May- 11 Oct (J Taylor, in NSB); max 7; (Atlas, MNRS) confirmed in all squares; 3 nests (all years), eggs 9 Jun-11 Jul, yg 10-16 Jul (L Carbyn, J Taylor); (Habitats, Distribution) in edge habitats, Drisdelle to Anderson Sett to Murray Cor to Cape Tormentine to Port Elgin to Tidnish R.

History: (E) 27 May-11 Oct, max 5.

Changes: no obvious status change, possibly some decline; BBS indices, nearby rtes -0.9% (14), Ecozone -2.1%+ (87).

Clay-coloured Sparrow *Spizella pallida* [CcSp]

Fundy

Present Status: fall vagrant; (E, others) 18 Nov 1984 (1), Amherst Pt MBS (D Currie, in NSB); 22 Jan, 3 and 21 Feb 1995, Sackville (A Smith, in NB Nat); 19 Dec 1998, Sackville CBC.

Strait

Present Status: [no records nr Strait].

Notes: [in N.B., 5 records 1973-74, and 3 singing birds that lingered for weeks during Atlas (1987-90) - nearest at Grande Digue (10 km outside region); near annual vagrancy in N.S.; no breeding known in Maritimes]; local winter records don't match patterns suggested elsewhere in Maritimes.

Field Sparrow *Spizella pusilla* [FiSp]

Fundy

Present Status: vagrant, [no recent records].

History: (T) 12 Oct 1974, Sackville; 23 Apr 1980, Amherst Pt MBS; (Others) 4 Nov 1973, Maccan (R Burrows, in NSBSN); (CBCs) Sackville 1980 - described as larger than ATSp [?!].

Strait

Present Status: vagrant, (CBCs) Cape Tormentine 1997.

History: Cape Tormentine 1974, 1980 - good details.

Notes: [known as frequent visitant in N.B. and N.S., often lingering in same area for weeks; bred in Fredericton 1972, but no breeding found in Maritimes during Atlas].

Lark Sparrow *Chondestes grammacus* [LaSp]

Fundy

Present Status: fall vagrant; (E, others) 6-8 Oct 1989 (1), Ft Lawrence (C Currie, in NSB); mid-Nov to CBC 1989 to 6 Jan 1990 (1), Sackville (D Busby; same bird as above?); 26 Oct 1997 (1), Westcock msh.

History: (M) and (E) never saw species locally then; (B) "Two... at a feeding station in Sackville on October 26, 1947".

Strait

Present Status: fall vagrant; [no recent reports].

History: (Others) 16 Sep 1979 (1), Tidnish Dock (ST, in NSBSN).

Notes: [long-known as vagrant in N.B. and N.S.].

Vesper Sparrow *Pooecetes gramineus* [VeSp]

Fundy

Present Status: scarce spring transient and summer visitant; perhaps now extirpated as breeder in our area: (E) Woodhurst rd nr Dorchester, 23 May 1983 (3), 26 May 1985 (1), singing birds; (Atlas) 2nd Westcock rd (breeding confirmed), and nr Maccan; (Habitats) latterly found mainly in blueberry fields.

History: (M) nr Memramcook mainly in migrations, 16 Apr-21 May, 12 Sep-10 Oct, max 3; only one in summer (17 Jun 1963) after 1941; (B) "Rare summer resident", breeding groups nr Westcock and Cookville; (E) not found (despite much prior familiarity with species); (T) "Rare transient" in 1970s.

Strait

Present Status: [no records nr Strait].

Changes: declining through period to near-absence; BBS indices, nearby rtes -6.9% (3), Ecozone -8.1%* (24).

Savannah Sparrow *Passerculus sandwichensis* [SavS]

Fundy

Present Status: common summer resident, a few linger to CBCs (overwintering not known here); (E, others) arrival, earliest 13 Apr 1985 (F Lavender, in NSB); mean 30 Apr (11 yr); max 30+; departure, mean 9 Oct (5 yr), latest 29 Oct; (Atlas, MNRS) in all squares, breeding confirmed in most; 14 nests (all years), eggs 19 May-22 Jun, yg 10 Jun-26 Jul (var obs); (Habitats, Distribution) widely in open habitats, e.g. Beaumont to Fairfield to Aboushagan rd to Jolicure to W Amherst to R Hebert to Salem; (CBCs) Sackville 1998 (1); Amherst 1984 (7), 1990 (3), 1994 (2).

History: (M) daily nr Memramcook 1929-79, arrivals, earliest 12 Apr, mean 22 Apr (30); max 50 (1930s), only once >25 after 1950s; departures, mean 13 Oct (20 yr), latest 18 Nov; (B) "Abundant summer resident... probably the most abundant bird in [his] region", 4 Apr-20 Oct, straggler 31 Dec 1954, 3 nests - eggs 8 Jun-3 Jul; (E) arrival, earliest 14 April 1968, mean 25 Apr (7 yr), max 100 (Aug 1967); departure, mean 10 Oct (10 yr), latest 31 Oct 1965; (CBCs) Sackville 1973 (2), 1974, 1976; Amherst 1973 (7), 1980.

Strait

Present Status: fairly common summer resident; (E) 18 May-7 Sep; max 5+; (Atlas, MNRS) breeding confirmed in all squares; 9 nests (all years), eggs 1 Jun-2 Jul, yg 17 Jun-16 Jul (var obs); (Habitats, Distribution) widely in open habitats, e.g. nr Drisdelle to Shemogue to Murray Cor to Cape Tormentine to Upper Cape to Baie Verte to Northport; (CBCs) Cape Tormentine 2000 (2).

History: (E) 3 May-9 Oct, max 10+; probably many (in main season) not entered; (CBCs) Cape Tormentine 1976 (1).

Changes: noted less often than formerly [less easily heard by older observers]; arrival and departure earlier and later, respectively, in the past than recently, and max numbers now lower than formerly; all indices suggest greater abundance in the past, i.e. probably declined; BBS indices, nearby rtes -2.7% (14), Ecozone -1.1% (82).

Grasshopper Sparrow *Ammodramus savannarum* [GrSp]

Fundy

Present Status: vagrant [no recent records].

History: (T) 25 Dec 1977-25 Jan 1978 (incl CBC; 1, at feeder, J Burke)

Notes: [reported near-annually in N.S., less often in N.B., in fall since 1964, a few earlier records].

(Nelson's) Sharp-tailed Sparrow *Ammodramus nelsoni* [NStS]

Fundy

Present Status: uncommon summer resident (in habitat); (E, others) 8 Jun 1987 (D Currie, in NSB) - 14 Aug, max 4+; (Atlas, MNRS) in 5 squares, breeding confirmed nr Amherst; 2 nests, eggs 20 Jun-12 Jul, Coles I msh, Aulac msh (J Paquet); (Habitats, Distribution) in salt/brackish marshes [formerly also inland], nr Beaumont, Up Dorchester, Westcock, Rampasture (most), Aulac msh, Amherst Pt, Minudie.

History: (M) nr Memramcook in 23 yr 1931-76, arrival, earliest 22 May, mean 27 May (3 yr), max 25 (1932), departure, mean 9 Oct (10 yr), latest 27 Oct; (B) "Common summer resident", (unseasonal 6 Apr 1949), 27 May-29 Oct, "especially common in drier parts of fresh marshes such as Jolicure, Midgic, and Amherst Point" [no longer so]; (E) 15 Jun-18 Sep, max 4+; still hd inland nr Midgic, Pt de Bute 1960-68, none later [likely owing to ongoing drainage and mowing of formerly damp fields].

Strait

Present Status: uncommon summer resident; (E) 19 Jun-17 Aug, max 5+; (Atlas, MNRS) in 7 squares, confirmed nr Cape Jourimain and Port Philip; 3 nests (all years), eggs 14 Jun-16 Jul, Johnsons Pt, Bayfield, Monash Pt (D Christie, A Smith, C Fahey); (Distribution) also at Cape Jourimain NWA, Port Howe.

History: (E) 14 Jun-26 Jul, max 4.

Notes: as 'Acadian Sharp-tailed Sparrow *Ammospiza caudacuta subvirgata*' (the local form, distinguishable in the field from *nelsoni* of prairies and Hudson Bay), this was the only avian taxon described from a N.B. type specimen, collected near Hillsborough, 3 km W of our area.

Changes: probably some decrease since 1930s, recent data too sparse for trends; BBS indices -16.1%* (5), Ecozone --.

Seaside Sparrow *Ammospiza maritima* [SeSp]

Fundy

Present Status: vagrant; (E) 29 Jun 1980 (1), Sackville.

Strait

Present Status: [no records nr Strait].

Notes: [reported near-annually along Fundy shore of Albert Co. (30-40 km W) since mid-1960s, Aug-Oct (Squires 1976); less frequent vagrant on Atlantic shores of N.S., Aug-Jan (1 May record) (Tufts 1986)]; thus plausible here - but date unusual if not breeding, which unknown N of Massachusetts.

Fox Sparrow *Passerella iliaca* [FoSp]

Fundy

Present Status: irregular uncommon spring transient, formerly scarce in fall (when now absent/casual); (E) 29 Mar-23 Apr, max 3; seen only in 5 springs - 1984, 1986, 1991, 1996, 1997; [no recent fall reports]; (CBCs) Sackville 1992 (1).

History: (M) at Memramcook in 25 yr 1929-74, spring, earliest 24 Mar, mean 2 Apr (18 yr); max 100 (17 Apr 1950); last, mean 28 Apr (18 yr), latest 7 May (straggler 2 Jun 1932); fall (8 yr) 2 Oct-6 Nov, max 3, stragglers (3 yr) to 12 Dec; (P) arrivals 24 Mar 1945 (an early spring), 9 Apr 1946, Aulac (per J Tingley); (B) at Westcock, "irregularly very common in spring, uncommon in fall"; 85 banded in 3 d (Apr), 4 Mar [v early] -1 May, 19 Oct-1 Nov; (E) in 7 springs 1960-68, 26 Mar-2 May, max 55 (15 Apr 1963); only fall record 22 Oct 1968 (1); (Others) summer straggler 9 Aug 1973 (1), Amherst; also 19 Oct & 1 Nov 1975, 20 Nov 1980 (2) (CD, in NSBSN); (CBCs) Sackville 6 yr (max 2, 1980), Amherst 1965 (c.p.).

Strait

Present Status: vagrant; (Others) 12 Apr 1997 (2), Tidnish (K Popma); fall 2000 (1), Waltons Bch, Cape Tormentine CBC 2000 (1).

Notes: birds in Maritimes are thought to be of Nfld (island) population, usually moving along Atlantic coast of N.S. (Bagg 1961), spreading inland to our area only some years, esp when snow lies late into Apr.

Changes: formerly more frequent and regular in spring (always uncommon in fall).

Song Sparrow *Melospiza melodia* [SoSp]

Fundy

Present Status: abundant summer resident and transient, uncommonly lingering into winter, overwintering v rare (if any); (E) arrival, earliest 12 Mar 1996, mean 26 Mar (20 yr); max (Mar-Aug) 25+, (Sep-Oct) 10+, (Nov-Feb) 3; departure, mean 15 Oct (14 yr), latest 8 Nov; winter records in Nov 6 yr, Dec 3 (excl CBCs), Jan 2, Feb 1 (Atlas, MNRS) breeding confirmed in all squares; 14 nests (all years), 31 May-2 Aug, yg 6 Jun-6 Aug (var obs); (Habitats) very widely in shrub and edge habitats, including in towns; (CBCs) Sackville 17 yr (max 16, 1993); Amherst 14 yr (max 11, 1996).

History: (M) nr Memramcook in 51 yr 1928-80, arrival, earliest 14 Mar 1949, mean 28 Mar (28 yr); max (Mar-Aug) 25+, (Sep-Oct) 25, (Nov-Feb) 4; winter records in Nov 14 yr, Dec 11, Jan 4, Feb 5; (P) arrivals 24 Mar 1945 & 19 Mar 1946 (per J Tingley); (B) "Common summer resident, occasionally winters", 4 Mar-5 Nov; (E) arrival, earliest 17 Mar 1963, mean 29 Mar (11 yr); max (Mar-Aug) 35, (Sep-Oct) 10+, (Nov-Feb) 2; winter records in Nov 4 yr, Dec 6, Jan 3, Feb 1; (CBCs) Sackville 10 yr (max 13, 1976); Amherst 10 yr (max 10, 1965).

Strait

Present Status: common summer resident and transient, uncommonly lingering (few attempt to winter, few feeders there); (E) 1 Apr-18 Oct; max (Mar-Aug) 16, (Sep-Oct) 2; (Atlas, MNRS) breeding confirmed in all squares, 16 nests (all years), eggs 22 May-30 Jun, yg 1 Jun-25 Jul (L Carbyn, I Finley, J Taylor); (Habitats) widely in shrub and edge habitats, including in villages; (CBCs) Cape Tormentine 15 yr (max 16, 1992).

History: (E) 23 Mar-16 Oct, max 4; (CBCs) Cape Tormentine 11 yr (max 21, 1976).

Changes: possibly some decrease, not very obvious; BBS indices, nearby rtes -0.1% (14), Ecozone - 0.5% (87).

Lincoln's Sparrow *Melospiza lincolnii* [LiSp]

Fundy

Present Status: fairly common local summer resident; (E) arrival, earliest 12 May, mean 23 May (15 yr); max 7; latest (song) 20 July; (Atlas, MNRS) in 13 squares, breeding confirmed in 2; 2 nests, eggs 28 May, 21 Jun, yg 17 Jun 1990, Grande Anse, Midgic (D Amirault, D Kimball); (Distribution) wood and marsh edges, nr Memramcook E and Beaumont to Westcock, Fairfield, Aboushagan rd, and Cookville, to Jolicure, Amherst (E), Maccan, and Fenwick.

History: (M) only 14 dates [8 later than any recent song date, = sightings only?] in 12 yr 1931-80 (B) very rare (& local), breeding nr Rockport; (E) 21 May- 6 Sep, max 2 [observer absent from area most of short song period those years]; (Others) early reports 11 May 1972 (2), Nappan (CD, in NSBSN), 3 May 1978 (1), Up Nappan (R Burrows, in NSBSN); 118, mostly imms, banded nr Jolicure 1972-78.

Strait

Present Status: uncommon summer resident; (E) 3-25 Jun, max 2; [no earlier records]; (Atlas) in 10 squares, confirmed in 2; (Distribution) nr Drisdelle, Oulton rd, Tidnish R; [song ended before most visits in late Jul-Aug 1990s].

Changes: no clear evidence of change in status; BBS indices -0.6% (11), Ecozone +2.3% (65).

Swamp Sparrow *Melospiza georgiana* [SwSp]

Fundy

Present Status: common summer resident, a few linger some years; (E, others) arrival, earliest 11 Apr 1981 (ST, in NSB); mean 26 Apr (16 yr); max 20; departure, mean 13 Oct (7 yr), latest 4 Nov; a few overwintered in Sackville w-f pk 1997-98, e.g. 25 Feb (1); (Atlas, MNRS) in all squares, breeding confirmed in 7; 5 nests (all years), eggs 19 May-7 Jun, yg 10 Jun-20 Jul (var obs); (Distribution) noted widely in marsh and damp shrubbery, e.g. Beaumont to Grande Anse to Sackville to Midgic to Jolicure to Amherst Pt MBS to Maccan R; (CBCs) Sackville 1990 (4), 2000 (4); Amherst 1983-85 (max 7, 1984).

History: (M) nrly every visit to Memramcook L & nrby wetlands, 1931-73, arrival, earliest 16 Apr, mean 28 Apr (17 yr); max 15; departure, mean 20 Oct (17 yr); more wintered (or attempted to) than at Sackville, records Dec 1948, Mar 1953, Jan 1967, Dec-Mar 1969-70, 1s or 2s; (B) "fourth most abundant Fringillid... occasionally winters", max (day) 41; (E) arrival, earliest 26 Apr, mean 2 May (6 yr), max 20+; departure, mean 8 Oct (7 yr), latest 24 Oct (2x); stragglers (5 yr 1962- 68) 21 Nov-30 Dec; (Others) 1 Jan 1980 (1), Amherst Pt MBS (ST, in NSBSN); (Habitats) most around wetlands, but occurs in moist ditches or creeks almost anywhere; (CBCs) Sackville 4 yr (max 3, 1979).

Strait

Present Status: common summer resident; (E) 28 May-17 Sep, max 12; (Atlas) in nrly all squares, confirmed in 13; (Distribution) widely in damp areas, e.g. Square L to Amos Pt rd to Anns Acres to Cape Spear to Port Elgin to Tidnish R;(CBCs) Cape Tormentine 5 yr (max 2, 2x).

History: (E) 12 May-25 Sep, max 3; probably others (in main season) not entered; (CBCs) Cape Tormentine 1976 (2).

Changes: no clear evidence of status change; BBS indices, nearby rtes -2.7% (14), Ecozone -0.7% (64).

White-throated Sparrow *Zonotrichia albicollis* [WtSp]

Fundy

Present Status: abundant summer resident and transient, scarce winter visitant; (E) arrivals, earliest 14 Apr, mean 29 Apr (18 yr); max 28; departures, mean 4 Oct (13 yr), latest 24 Oct; (Atlas, MNRS) in all squares, breeding confirmed in nrly all; 12 nests (all years), eggs 1 Jun-14 Jul, yg 7 Jun-14 Jul (var obs); (Habitats) very widely in woodlands and brushy edges, throughout region, absent in open & urban areas except in migration & winter; (CBCs) Sackville 14 yr (max 20, 2000); Amherst 10 yr (max 8, 1994).

History: (M) nr Memramcook in 42 yr 1929-80, arrivals, earliest 20 Apr, mean 2 May (26 yr); max 22; departures, mean 19 Oct (19 yr), latest 9 Nov; 1-4 birds in 6 winters, no proved overwintering; (B) "Very common summer resident and transient, occasionally winters", 23 Apr-31 Oct, nest - eggs 11 Jun 1948; (E) arrivals, earliest 25 Apr, mean 29 Apr (6 yr); max 71 (BBS), 49 (other); departures, mean 13 Oct (11 yr), latest 31 Oct; (Others) overwintered Amherst 1976-77 (1-2) (CD, in NSBSN); (CBCs) Sackville 11 yr (max 16, 1980); Amherst 4 yr (max 4, 1975).

Strait

Present Status: abundant summer resident and transient; (E) 9 May-24 Oct; max 20+; (Atlas, MNRS) breeding confirmed in all squares; 2 nests (all years), eggs 14 Jun, yg 28-31 Jul (W McNutt, J Taylor); (Habitats, Distribution) very widely in woodlands and edges, largely absent (CBCS) Cape Tormentine 7 yr (max 11, 2000).

History: (E) 3 May-4 Oct, max 10; straggler 28 Dec (CBC); probably many (in main season) not entered; (CBCs) Cape Tormentine 6 yr (max 37, 1976; next 2).

Changes: no clear local evidence for status changes, but BBS indices, nearby rtes -3.5%* (14), Ecozone -3.1%* (91), indicate declines.

White-crowned Sparrow *Zonotrichia leucophrys* [WcSp]

Fundy

Present Status: spring and fall vagrant; (E, others) 17 Nov 1984, Amherst Pt MBS (D Currie, in NSB); 8 Oct 1997, 25 May 2000, Sackville; 6 Jan 2000 (1), Taylor Vill (A Clavette, in NB Nat); (CBCs) Sackville 1986 (1); Amherst 1985 (1), 1998 (3).

History: (M) nr Memramcook in 12 yr 1930-74, 5-27 May (8 yr), 24 Sep-19 Oct (4 yr), max 3; (B) 14 May (7) and 2-9 Oct 1948, Sackville; (E) 10 Oct 1965 (2), Amherst Pt MBS; (Others) 5 Oct 1975 (2), 17 May 1976 (1), Amherst (CD, in NSBSN); (CBCs) Amherst 1976 (2).

Strait

Present Status: vagrant; (CBCs) Cape Tormentine 1985 (1).

History: (CBCs) Cape Tormentine 1973 (2), 1976 (1).

Notes: migration to and from Labrador mostly passes farther west (species is regular at Fredericton).

Changes: too few records here to show trends.

Dark-eyed (Slate-coloured) Junco *Junco hyemalis* [DeJu; ScJu] *

Fundy

Present Status: common summer resident and transient, occasionally fairly common into winter, few staying through; (E) arrival, earliest 17 Mar 1995, mean 30 Mar (18 yr); max (Mar-Apr) 45, (May-Aug) 9, (Sep-Nov) 20; departure, mean 1 Nov (4 yr), latest 14 Nov; in Dec, Jan, Feb 10, 1, 0 yr (max 15, 1, 0); (Atlas, MNRS) in all squares, breeding confirmed in nrly all; 4 nests (all years); eggs 30 May-20 Jun, yg 17 Jun-6 Jul (var obs); (Habitats) widely in woodland openings, edges, shrublands, (garden feeders in winter and spring); (CBCs) Sackville 18 yr (max 276, 1988); Amherst 18 yr (max 87, 1998).

History: (M) nr Memramcook in 44 yr 1929-80; arrival, earliest 13 Mar (2x), mean 28 Mar (24 yr); max (Mar-Apr) 50, (May-Aug) 20, (Sep-Nov) 25; departure, mean 1 Nov (13 yr), latest 13 Nov; in Dec, Jan, Feb 12, 10, 9 yr (max 12, 10, 10); (P) arrival 19 Mar 1946 (per J Tingley); (B) "Fairly common summer resident, very common transient, and irregular winter visitant", 18 Mar-1 Nov, max (migration) 100+; wintered Westcock 1948-49 & 1952-53; (E) arrival, earliest 22 Mar, mean 31 Mar (10 yr); max (Mar-Apr) 40, (May-Aug) 26, (Sep-Nov) 44; departure, mean 26 Oct (12 yr), latest 16 Nov; in Dec, Jan, Feb 7, 3, 1 yr (max 16, 8, 2+); (Others) 12 Jan 1976 (15), Amherst Pt MBS (CD, in NSBSN); (CBCs) Sackville 19 yr (max 98, 1961); Amherst 11 yr (max 14, 1964).

Strait

Present Status: fairly common summer resident and transient; occasional in winter; (E) 25 Mar-21 Nov; max 7; (Atlas, MNRS) in nrly all squares, confirmed in most; 2 nests (all years), eggs 6 May, yg 27 Jun-2 Jul (J Taylor); (Distribution) in woodlands and edges nr Drisdelle, Square L, Duguay Pt to Murray Cor, Bayfield, Cape Spear, to Baie Verte to Amherst Shore Prov Park; (CBCs) Cape Tormentine 17 yr (max 162, 1988).

History: (E) 20 Apr-16 Nov, max 15; (Others) wintering, 29 Jan 1961 (1), Baie Verte (A Goodwin, in Nat News); (CBCs) Cape Tormentine 17 yr (max 48, 1972).

Changes: no local evidence of status change, but BBS indices, nearby rtes -4.0%* (14), Ecozone -1.6%+ (85), suggest decline.

Notes: Oregon Junco (subspecies; OrJu) reported 15-18 Apr 1991 (1), Ft Lawrence (C Currie, in NSB).

Lapland Longspur *Calcarius lapponicus* [LaLo]

Fundy

Present Status: uncommon winter visitant and transient; (E, others) 25 Oct- 2 Apr 1988 (8; F Lavender, in NSB); max 150 (30 Jan 1988, Minudie; F Lavender, in NSB); (Habitats, Distribution) mainly on dykelands, occasionally in town [rarely perching in trees (!), nr feeders], at Westcock, Sackville, Highmarsh rd; (CBCs) Sackville 11 yr (max 23, 1990); Amherst 10 yr (max 67, 1984).

History: (M) nr Memramcook in only 5 years 1933-63; 1-30 Oct, max 6; (B) "Common transient, occasionally winters", 9 Oct-19 Dec, 23 Feb-10 Apr, max 71 (19 Dec 1948, Sackville); (E) 18 Nov-5 Mar, max 30, nr Wood Pt, Sackville, Ft Lawrence; (T) "An unusually large flock numbering 315+... on the John Lusby salt marsh on Jan. 1/80"; (CBCs) Sackville 13 yr (max 87, 1976); Amherst 4 yr (max 150, 1968).

Strait

Present Status: scarce fall transient and winter visitant; (E) none detected (there), recently or earlier; (CBCs) Cape Tormentine 1981 (2), 1989 (9), 1997 (30).

History: (Others) 15 Nov 1975 (2), Cape Jourimain NWA (CD, in NSBSN), 30 Sep 1978 (3), Northport (NSBS trip); (CBCs) Cape Tormentine 1962 (1).

Changes: data too sparse for detecting trends.

Snow Bunting *Plectrophenax nivalis* [SnBu]

Fundy

Present Status: variably common transient and winter visitant; (M.E. others) fall arrival, earliest 17 Oct 1999, mean 2 Nov (9 yr); max 2000+ (15 Feb 1986, Minudie; F Lavender, in NSB); spring departure, mean 31 Mar (3 yr), latest 7 Apr; (Habitats, Distribution) in open habitats, incl dykelands, saltmarshes, shores, occas in towns; nr Memramcook, Frosty Hollow, Westcock, Sackville, Cookville, Highmarsh rd, Jolicure, John Lusby msh; (CBCs) Sackville all 20 yr (max 8130, 1986); Amherst 18 yr (max 2314, 1981).

History: (M) nr Memramcook in 36 winters 1930-31 to 1978-79; fall arrival, earliest 7 Oct (1957,1971), mean 27 Oct (13 yr); max 250 (Nov 1952; hearsay 1000 Feb 1949); spring departure, mean 6 Apr (11 yr), latest 24 Apr; (B) "Very common transient and winter visitant, irregularly abundant", max 2500 (9 Dec 1949, Westcock); (E) 25 Oct-16 Apr, max 300; (Others) 8 Apr 1972 (1000s), Nappan; 20 Mar 1977 (350+), Amherst Pt (in NSBSN); (CBCs) Sackville 20 yr (max 2886, 1976); Amherst 13 yr (max 800+, 1976).

Strait

Present Status: fairly common transient and winter visitant; (E, others) 28 Oct 1999 (300, max; K Popma) -12 Apr; (Habitats, Distribution) mainly nr shores, at Cape Jourimain NWA, Cape Tormentine, Cape Spear, Tidnish Dock, Linden, Port Howe;(CBCs) Cape Tormentine all 20 yr (max 792, 1984).

History: (E) 17 Dec-17 Apr, max 50; (Others) 7 Jan 1967 (90), Shemogue (D Christie, in Nat News); (CBCs) Cape Tormentine 14 yr (max 616, 1973).

Changes: data show wild fluctuations between years, but no sustained trends.

Northern Cardinal *Cardinalis cardinalis* [NoCa]

Fundy

Present Status: late fall/winter vagrant; (E, others) 24 Dec 1985 (1), 3 Nov 1990-18 Feb 1991 (f), both Amherst (CD, in NSB); 2 Nov 1989 (1), Sackville (N Garrity, in NB Nat); Dec 1995, Westcock (killed by NShr; P Bogaard, in NB Nat); (CBCs) Sackville 1983, 1984, 1995, 1999, some for weeks before &/or afterwards; Amherst 1990, 1995; all singles.

History: (M) at Memramcook, 26 Nov 1973-25 Jan 1974 (m); (CBCs) Sackville 1973 (1).

Strait

Present Status: vagrant; (CBCs) Cape Tormentine 1991.

Notes: [first breeding in sw N.S. from 1975, in sw N.B. from 1980]; vagrancy more expectable now than formerly.

Rose-breasted Grosbeak *Pheucticus ludovicianus* [RbGr]

Fundy

Present Status: fairly common (to uncommon?) summer resident; (E) arrival, earliest 14 May, mean 19 May (14 yr); max (1981-90) 6, (1991-2000) 3; latest in fall 10 Sep; (Atlas) in all squares, breeding confirmed in 7; (Habitats, Distribution) widely in mixed and broad-leafed forests, nr Memramcook, Fairfield, Frosty Hollow, Aboushagan rd, Centre Village, Jolicure, Amherst Pt MBS, R Hebert, Athol, Fenwick.

History: (only vagrants until) arrival in 1970s and rapid increase to present levels; (M) only twice (both 1948) before 1964; arrivals 17-21 May (3 yr); latest 1-3 Sep (2 yr); max 2; (B) never noted species (locally); (E) saw none - locally - in 1960s; 5 dates 20 May-23 Jun (singles) 1978-80; (T) 76 captured/banded at Tintamarre NWA 1972-78 [suggested undetected fall migrants resent then].

Strait

Present Status: fairly common summer resident; (E) 28 May-3 Aug, max 5; [none before 1980s]; (Atlas) in nrly all squares, confirmed in 14; (Distribution) nr Drisdelle, Poucette L, Square L, Duguay Pt, Amos Pt, Lit Shemogue, Bayfield (S), Oulton rd, Port Elgin, Tidnish R.

Notes: breeding in area correlated with opening-up of local conifer forests by budworm (1974-75) with growth of hardwood shrubbery.

Changes: nearly absent near Fundy before 1960s, regular later, perhaps some decline recently; BBS indices, nearby rtes -1.4% (14), Ecozone -1.4% (76).

Black-headed Grosbeak *Pheucticus melanocephalus* [BhGr]

Fundy

Present Status: late summer/fall vagrant; (Others) 20 Oct 1986 (m), Amherst (Mrs F Schaap, in NSB), viewed & sketched at 2 m, detailed description provided.

History: (Others) 10 Aug 1977, Amherst (CD, in NSBSN), maybe a female, not completely convincing (Tufts 1986).

Notes: [main range is W of Rocky Mtns, few in Alta; 8 records in N.S. through 1985 (Tufts 1986)].

Indigo Bunting *Passerina cyanea* [InBu]

Fundy

Present Status: irregular spring visitant; (E, others) 30 May 1981 (im m), Amherst Pt MBS (B Mactavish et al, in NSB); 24 Apr-mid-May 1986, sev singles - Sackville, Pt de Bute, Baie Verte [only first verified; many reports in N.S. same period]; Chapman Sett 12-13 Jul 1990 [Atlas], perhaps lingered from spring; early spring 2000, Sackville (not verified);

History: (M) at Memramcook, 17 Jul 1935 [description unconvincing, date unlikely?]; 13 May 1969; (B) "one record, a singing male at Cookville on June 9, 1948"; (Others) 14 May 1973, Amherst (CD, in NSBSN); mid-May 1979 (m, singing), Sackville (K Popma, E); mid-May 1980, Up Sackville (sev obs).

Strait

Present Status: [no reports nr Strait before 1986 (see above)].

Notes: [a 'regular stray' in all 3 provinces; 5 nests found in N.B. from 1977, nearest 50-60 km W of our area].

Bobolink *Dolichonyx oryzivorus* [Bobo]

Fundy

Present Status: until recently common/now uncommon summer resident; (E, others) arrival, earliest 10 May, mean 19 May (20 yr); max 100 (25 May 1992, Amherst area; K McKenna, in NSB); departure, mean 27 Aug (11 yr), latest 6 Sep; (Atlas, MNRS) in all squares, breeding confirmed in 11; 25 nests (all years), eggs 5 Jun-4 Jul, yg 26 Jun-31 Jul (var obs); (Habitats, Distribution) widely in grasslands, e.g. nr Beaumont, Memramcook, Rockport, Sackville, Highmarsh rd, Midgic, Jolicure, Amherst Pt MBS, R Hebert, Minudie, Fenwick.

History: (M) nr Memramcook in 36 yr 1929-80; arrival, earliest 12 May, mean 19 May (24 yr); max (May-Jun) 25, (Jul-Aug) 100; departure, mean 31 Aug (13 yr), latest 17 Sep, straggler 19 Nov 1971 (1); (B) "Common summer resident", 22 May-9 Sep, nest - 2 Jul 1950 (yg); (E) arrival, earliest 11 May, mean 22 May (9 yr); max (May-Jun) 37, (Jul-Aug) 150; departure, mean 5 Sep (10 yr), latest 11 Sep; (Others) max spring 9 May 1973 (50), fall 16 Jul 1978 (175, incl 40 m), Amherst Pt MBS (CD, ST, in NSBSN).

Strait

Present Status: until recently fairly common/now scarce summer resident; (E) 22 May-22 Aug, max 20+; (Atlas) in all squares, confirmed in almost all; (Distribution) widely in grasslands, e.g. Anderson Sett, Chapman Cor, Spense, Cape Spear, Malden, Baie Verte, Tidnish Br, Port Howe.

History: (E) 26 May-4 Aug, max 25.

Changes: no change obvious before ca.1990; major decline thereafter throughout area - no records nr Strait after 1994, few except on dykelands (max 10) nr Fundy; BBS indices, nearby rtes -1.7% (14), Ecozone -2.9%* (78).

Red-winged Blackbird *Agelaius phoeniceus* [RwBl]

Fundy

Present Status: common summer resident and transient, a few occasionally in winter; (E) arrival, earliest 12 Mar, mean 26 Mar (21 yr), max (Mar-Jul) 100+, (Aug-Oct) 300+; departure, mean 22 Oct (16 yr), latest 7 Nov; seen in Dec 4 yr, in Jan-Feb only 1998-99; (Atlas, MNRS) in 20 squares, breeding confirmed in 14; 196 nests (all years), eggs 15 May-15 Jul, yg 3 Jun-6 Aug (var obs); (Habitats, Distribution) in open habitats, mainly around wetlands in breeding season; e.g. nr Memramcook L, Sackville, White Birch rd, Tintamarre NWA, Eddy msh, Amherst Pt MBS, R Hebert; (CBCs) Sackville 10 yr (max 16, 1994); Amherst 7 yr (max 4, 1988).

History: (M) nr Memramcook in 36 yr 1931-77; arrival, earliest 9 Mar 1974, mean 28 Mar (19 yr); max (Mar-Jul) 200+, (Aug-Oct) 300+; departure, mean 27 Oct (22 yr), latest 27 Nov 1968; not seen Dec-Feb; (B) "Very common summer resident and transient", 6 Mar-4 Nov, max (spring) 65, (fall) 1000 (2 Nov 1954, Midgic); (E) arrival, earliest 25 Mar, mean 1 Apr (10 yr); max (Mar-Jul) 208, (Aug-Oct) 300; departure, mean 27 Oct (9 yr), latest 12 Nov.; (Others) Dec- Jan 1961-62, Sackville (C Godfrey, in Nat News); (CBCs) Sackville 9 yr (max 3, 1976); Amherst 4 yr (max 1).

Strait

Present Status: fairly common summer resident; (E) arrival, earliest 1 Apr 1988, mean 8 Apr (6 yr); max (Apr-Jul) 35+, (Aug-Oct) 25+; locally in flocks after early Aug, latest 14 Oct 1995; (Atlas, MNRS) confirmed breeding in all squares; 10 nests (all years), eggs 1-21 Jun, yg 3-30 Jun (R McLeod, W McNutt, J Taylor); (Habitats, Distribution) mainly around wetlands, esp impmts; e.g. nr Shemogue, Collins L, Hardy rd, Cape Jourimain NWA, Timber R, Baie Verte, Tidnish R, Northport, Port Howe; (CBCs) Cape Tormentine 3 yr (max 7, 2x).

History: (E) 24 Mar-late Jul; max (Mar-Jul) 100; 28 Oct 1965 (150); (CBCs) Cape Tormentine 4 yr (max 4, 1976).

Changes: little obvious change in status, perhaps some decline; BBS indices, nearby rtes -2.8%* (14), Ecozone -1.7% (86).

Eastern Meadowlark *Sturnella magna* [EaMe]

Fundy

Present Status: irregular visitant, more in fall than spring; (M) 28 Oct 1983, Memramcook; [no Atlas records in this region].

History: (M) nr Memramcook, 8 records in 7 yr 1951-73; 5 Apr-17 May, 2 Sep-17 Nov, max 2; (B) 4 records, 27 Oct-31 Dec, max 4; (E) 12 May 1962 (1), by Highmarsh rd; (T) 1-2 most falls in 1970s, when "nested just east of... area in 1975" [details of that nesting not found in MNRS nor NSBSN]; (Others) at feeder Jan 1977 (1), Amherst (CD, in NSBSN); (CBCs) Sackville 1976 (1).

Strait

Present Status: irregular visitant, more in fall than spring; (Others) 4-15 Dec 2000, nr Upper Cape & Cape Jourimain NWA [incl CBC] (var obs, in NB Nat); [no Atlas records in this region].

History: (Others) 10 Nov 1968, Northport (R MacNeil, in NSBSN).

Notes: [nearest breeding in N.B. 60 km NW (beyond Moncton)].

Changes: reports more frequent 1950s-1970s than before or later, always scarce.

Yellow-headed Blackbird *Xanthocephalus xanthocephalus* [YhBl]

Fundy

Present Status: vagrant; (Others) 6 Apr 1995 (m), Sackville (C Cormier and P Hicklin, in NB Nat); 11 Jun 2000, Memramcook (R Robichaud, in NB Nat).

History: (Others) Dec 1970-Feb 1971 (1, at feeder, photo'd), Amherst (B Addendum).

Notes: breeding E of prairies local, so Mich to extreme sw Ont; only vagrants farther east; usually unmistakable.

Rusty Blackbird *Euphagus carolinus* [RuBl]

Fundy

Present Status: scarce migrant and summer resident; a few in winter; (M) 3 Jul 1983 (1), Grande Anse; (E) 4 Apr-26 Sep, no groups >10 birds; (Others) 14 Mar 1981 (2), Amherst (fdr; CD, in NSBSN); mid-Jan 1985 (2), Aulac (ST, in NB Nat), a few most winters since 1995 in Frosty Hollow (most; per N. Garrity) and Sackville; (Atlas) in 4 squares, breeding confirmed nr Johnson L; (Distribution) also nr Frosty Hollow, Sackville, Breau Crk (upper), Aboushagan rd, R Hebert (E); (CBCs) Sackville 10 yr (max 13, 1985); Amherst 5 yr (all singles).

History: (M) spring, earliest 29 Mar 1949, mean 11 Apr (12 yr); max 44; latest 15 May; fall (6 yr), 18 Sep-16 Nov, max 10; winter, 17 Feb-16 Mar 1955 (1), 11 Jan 1975 (1), Memramcook; (B) "Fairly common transient", max 25; (E) arrival, earliest 24 Mar, mean 4 Apr (9 yr) -12 May, max 40; 17 Jun 1968 (1), Jolicure; 7-9 Jul 1966-67, max 2, Lr Rockport; 2 Sep-12 Oct, max 45; (Others) 22 Feb 1979 (3), 7 Nov 1980 (1), Amherst (fdr; CD, in NSBSN); 30 Mar 1980, E Amherst (ST, in NSBSN); (CBCs) Sackville 5 yr (max 3, 1971); Amherst 3 yr (max 2, 1963).

Strait

Present Status: scarce migrant & summer resident; (E) 14 Oct 1995 (3), Baie Verte; (Atlas) confirmed breeding in 2 squares (Northport, Beckwith); (CBCs) Cape Tormentine 6 yr (max 3, 2x).

History: (E) 1 Oct 1960 (15), Port Elgin;(Others) winter 1974-75, Melrose (ST, in NB Nat); (CBCs) Cape Tormentine 3 yr (max 4, 1971).

Changes: decreased as migrant after ca.1970; breeding scarce throughout; BBS indices, nearby rtes +17.4% (7), Ecozone -6.9% (38).

Common Grackle *Quiscalus quiscula* [CoGr]

Fundy

Present Status: common summer resident, scarce in winter; (E, others) arrival, earliest 8 Mar, mean 23 Mar (20 yr), max (spring) 1000+ (Amherst-Minudie; F Lavender, in NSB), (May-Aug) 40+; (Sep-Nov) 2500 (7 Oct 1982), next 200; departures, mean 19 Oct (13 yr), latest 8 Nov; in 10 of 20 winters (Dec-Feb), max 8; (Atlas, MNRS) confirmed in all squares; 65 nests (all years), eggs 19 May-16 Jun, yg 30 May-14 Jul (var obs); (Distribution) very widely in wood-edges, wetlands, urban tree-rows, Mar-Aug; only locally (roving flocks or roosts) in fall; (CBCs) Sackville 17 yr (max 26, 1985); Amherst 16 yr (max 6, 1982, 1996).

History: (M) nr Memramcook 34 yr 1929-77; arrivals, earliest 8 Mar, mean 26 Mar (28 yr); max (Mar-Jul) 220, (Aug-Nov) 7200 (27 Oct 1949), 5000 (27 Oct 1961); departure, mean 1 Nov (18 yr), latest 17 Nov; (P) arrival 16 Mar 1945 (an early spring) (per J Tingley);(B) "Fairly common summer resident and very common transient", max 850 (27 Oct 1948); (E) arrival, earliest 20 Mar, mean 29 Mar (11 yr); max (spring) 500, (May-Aug) 40+, (Sep-Nov) 1500+ (9 Oct 1965); departure, mean 20 Oct (9 yr), latest 14 Nov; (CBCs) Sackville 15 yr (max 28, 1972); Amherst 8 yr (max 13, 1979).

Strait

Present Status: common summer resident, scarce in winter; (E) arrival, earliest 25 Mar, mean 5 Apr (7 yr); max (spring) 73, (May-Aug) 25; departure early Oct; (Atlas, MNRS) confirmed in all squares; 17 nests (all years), eggs 27 May-17 Jun, yg 1 Jun-20 Jul (var obs); (Distribution) widely Apr-Aug, irregular & scarce in fall; (CBCs) Cape Tormentine 9 yr (max 9, 1991).

History: (E) arrival, earliest 23 Mar 1966, mean 1 Apr (5 yr), to 28 Apr 1963 (60); max (spring) 300 (4 Apr 1968), (May-Oct) 15; found erratically after nesting completed, e.g. 1 Sep 1978 (3), 12 Oct 1966 (15), latest 4 Nov 1961 (1); (Distribution) so widespread and general (cf. Atlas) that often ignored, e.g. Murray Cor, Port Elgin, Tidnish, Amherst Hd, Shinimicas, Northport, Port Philip; (CBCs) Cape Tormentine 3 yr (max 3, 1974).

Changes: major decrease in migrants (presumably from decline in P.E.I. breeding population after 1960s), no obvious change in local summer population; BBS indices, nearby rtes -2.8% (14), Ecozone -1.8%* (88).

Brown-headed Cowbird *Molothrus ater* [BhCo]

Fundy

Present Status: uncommon migrant and rare summer resident*; (E) arrival, earliest 28 Mar, mean 2 Apr (8 yr); max after 1986 8, only noted 5 dates after 1991; latest in fall 27 Sep; a few wintered in Sackville 1985-86, last flock 20 Dec 1986; (Others) 17 Dec 2000 (1), Tantramar msh (R Miller and K Popma, in NB Nat); (Atlas) in most squares, confirmed breeding in 2; (Distribution) nr Woodhurst rd, Frosty Hollow, Westcock, Sackville, Mount View, Aboushagan rd, Drisdelle, Jolicure, Amherst Pt MBS, R Hebert; (CBCs) Sackville 12 yr (max 57, 1982, none >5 after 1990)); Amherst 11 yr (max 63, 1984, none after 1995).

History: (M) nr Memramcook, only 3 records (1-2) 1930s, more frequent (max 10) 1946-58, common migrant (max 200) and uncommon summers 1960-77, 11 Mar-20 Nov, stragglers Dec-Jan; (B) "Fairly common transient and uncommon summer resident", 6 Mar-16 Oct, max 25; (E) arrival, earliest 6 Mar 1966 [wintered?], mean 29 Mar (9 yr); max (Mar-Apr) 100, (May-Aug) 9, (Sep-Nov) 100; departure late Oct; noted in Dec, Jan, Feb 3, 3, 2 yr (max 3, 5+, 6)

(Others) late peak May 1978 (100) (CD, in NSBSN); (CBCs) Sackville 15 yr (max 83, 1974); Amherst 5 yr (max 100+, 1969, also 3 yr c.p.).

Strait

Present Status: uncommon migrant and rare summer resident; (E) 17 Apr-21 Sep, 17 Dec 1983 (max 60); not seen after 1993; (Atlas) mapped in most squares, but by (E) only nr Duguay Pt, Cape Tormentine, Baie Verte; breeding confirmed in 5 squares; (CBCs) Cape Tormentine 8 yr (max 60, 1983, none >6 after 1986).

History: (E) 24 Mar-25 Oct; 23 Dec 1963 (21); max (spring) 300, (summer) 10, (fall) 60; (CBCs) Cape Tormentine 10 yr (max 240, 1974, also 123, 1973).

Changes: Uncommon, increasing 1960s-1970s to common in migration and regular in winters, then decreasing to uncommon, never more than uncommon in summers; BBS indices, nearby rtes -6.7* (14), Ecozone -6.2* (75), confirm decline after 1960s.

Note: only nest reported victimized in this region (MNRS, all years) was of ReVi, eggs 21-28 Jun 1999, Sackville (J Barnhill) [but few nests of usually victimized spp were found locally].

Orchard Oriole *Icterus spurius* [OrOr]

Present Status: vagrant; (Others) 18 May 1997 (f) Sackville (K Popma); [several others reported across so N.B. same week].

History: (M) 3 Jun 1971 (m), Memramcook (in NB Nat).

Notes: [regular breeding not nearer than so Ontario]; not expected to recur here.

Baltimore Oriole (Northern Oriole) *Icterus galbula* [BaOr]

Fundy

Present Status: scarce summer resident and fall vagrant, some lingering into winter; (E) 25 May-21 June, 5 Nov-20 Dec, max 4; (Atlas) no summer reports during Atlas; nesting reported in Sackville 1984 (C Wood, no details); (Distribution) all reports in Sackville or Amherst; (CBCs) Sackville 1993, 1997; Amherst 1996 (all singles).

History: (M) at Memramcook, single May and Sep records 1950; noted 5 yr 1963-73, May, Sep, Oct; (B) 22 Sep 1949, Westcock; (E, others) Dec 1962, Sep 1963, 20-28 Nov 1978 (3), late Nov 1980 (2), all at Sackville fdrs; (T) only one in spring (24 May 1976) (CBCs) Sackville 1962 (1); Amherst 1966, 1968 (both c.p.).

Strait

Present Status: scarce summer resident; (Atlas) confirmed breeding nr Port Howe and Beckwith, and one other sighting; [no earlier reports].

Changes: few suggestions of breeding [though MNRS records from Moncton and Oxford, only 50 km distant]; data too sparse for trends.

Pine Grosbeak *Pinicola enucleator* [PiGr]

Fundy

Present Status: irregular winter visitant, casual in summer (breeding unconfirmed but possible); (M)

18 Jul 1981 (2), Grande Anse; (E) 5 Sep-25 Apr, max 12; also 7 Jun 1988, Brooklyn rd; 25 Jul 1998, Amherst Pt MBS (singles); (Atlas) sightings nr Aboushagan rd and Salem ('possibles'); (Distribution) woodlands nr Fairfield, Frosty Hollow, Sackville, Breau Crk (upper), Aboushagan rd, Jolicure, Amherst Pt MBS; (CBCs) Sackville 10 yr (max 201, 1997, other yrs <60); Amherst 12 yr (max 135, 1997, others <40).

History: (M) nr Memramcook in 24 winters 1929-30 to 1973-74; 15 Oct-28 Mar, most records Nov-Feb; almost daily in winters 1961-62 (max 20) and 1968-69 (max 33), vs. 8 winters with only 1-2 birds; also 8 May 1960, Beaumont; Sep 1971 Memramcook East, Sep 1972 Grande Anse; (B) "Irregular fairly common winter visitant", 29 Oct-14 Feb; (E) often winter 1961-62 (max 27), but more 1965-66 (max 60) when McManus had few; migration (?) 15 Oct 1980, flying W at Cape Maringouin (in NB Nat); (CBCs) Sackville 16 yr (max 161, 1965; next 100, 1968; 69, 1961); Amherst 9 yr (max 30, 1980).

Strait

Present Status: irregular winter visitant; (E) in 6 of 20 yr, 6 Nov-19 Dec, max 27; (Atlas) in 4 squares, Cadman Cor to Leicester, breeding not confirmed; (Distribution) at Cape Jourimain NWA, Cape Tormentine, Oulton rd, Melrose, Tidnish; (CBCs) Cape Tormentine 12 yr (max 106, 1997; others <45).

History: (CBCs) Cape Tormentine 13 yr (max 142, 1975; also 93, 1968).

Changes: fluctuations erratic, some peaks showed across our region, e.g. 1968-69, 1997-98, others more local; no obvious long-term trend; BBS indices, nearby rtes -25.7% (4), Ecozone -17.7%* (26), suggest fewer recently - but small summer samples throughout.

Purple Finch *Carpodacus purpureus* [PuFi]

Fundy

Present Status: fairly common summer resident, irregularly common winter visitant and transient; (E,M) arrivals [excl scattered Mar records in 7 yr], earliest 13 Apr, mean 3 May (19 yr); max (May) 20+, (Jun-Aug) 5; latest (song) 5 Aug; Sep-Nov records 4 yr (max 2), Dec-Feb records 3 yr (max 6+); (Atlas, MNRS) in all squares, breeding confirmed in 7; nest, yg 28 Jul 1966, Amherst Pt MBS (W McNutt); (Distribution) mostly in woodlands, Memramcook E to Cape Maringouin to Sackville to Aboushagan rd to Ft. Lawrence to Maccan to R Hebert to Little Fks; (CBCs) Sackville 8 yr (max 11); Amherst 4 yr (max 21).

History: (M) nr Memramcook in 41 yr 1929-80; arrivals [excl 8 other yr when seen regularly (max 130) from Mar or earlier], earliest 2 Apr, mean 25 Apr (20 yr); max (Apr-May) 55, (Jun-Aug) 13, Sep-Nov records in 14 yr (max 200, next 8), Dec-Feb records in 19 yr (max 80); (B) "Fairly common summer resident, irregular in winter", 1 Apr-18 Nov, max 7; (E) arrivals [excl 2 other yr when seen regularly (max 16+) from early Mar], earliest 2 Apr, mean 24 Apr (9 yr); max (Apr-May) 10+, (Jun-Aug) 5, Sep-Nov records (max 4) 7 yr, Dec-Feb records (max 36 - 1964-65) 2 yr; (CBCs) Sackville 5 yr (max 73, 1964); Amherst 4 yr (max 18, 1964).

Strait

Present Status: fairly common summer resident; [winter coverage (mainly coastal) unsuitable for detecting (probably scarce irregular) occurrence then]; (E) 20 Apr-26 Jul; max 6; (Atlas, MNRS) found in all squares and confirmed in most; 2 nests, yg out of nest 9 Jun 1963 (Port Elgin, L Carbyn), 17-20 Jul 1992 (Port Howe, J Taylor); (Distribution) woodlands, e.g. Drisdelle to Square L to Bayfield to Noonan rd to Tidnish R to Amherst Shore Prov Park; (CBCs) Cape Tormentine 3 yr (max 3).

History: (E) 26 May-17 Aug, max 3; (Distribution) Anderson Sett, Murray Cor, Cape Tormentine, Port Elgin, Tidnish R, Linden; (CBCs) Cape Tormentine 2 yr (max 57, 1964).

Changes: wide variations among years, areas, and observers obscured trends, higher maxima before

1980 suggested some decrease; BBS indices, nearby rtes -5.6%* (14), Ecozone -4.9%* (89), also support decline.

House Finch *Carpodacus mexicanus* [HoFi]

Fundy

Present Status: scarce irregular visitant, breeding some years; (E, others) most records Mar-Aug, once each Jan, Oct, Dec; most 1s or 2s, hd or seen; first records, 15 Jan 1984 (1), Amherst (CD, in NSB); 8 Aug 1986 (1m5f = family grp?), Sackville; late May 1993 (2m), Amherst (in NSB); (Atlas) 'probable breeding' (pr, for 2 wks) in Sackville; breeding reported (no details) in Amherst ca.1985 [& Moncton, nests (MNRS) 1992,1996]; (CBCs) Sackville 1998 (1).

Strait

Present Status: [no reports nr Strait].

Changes: first detected in Maritimes 1983, first confirmed breeding 1987 (in Atlas); evidently recent arrival locally; a strictly urban/suburban bird, numbers in Sackville and Amherst likely cannot maintain threshold needed for annual breeding.

Red Crossbill *Loxia curvirostra* [ReCr]

Fundy

Present Status: irregular scarce visitant; (E) Jan, Mar, May, Jun; only 1988 [when breeding also more widespread in Maritimes, see WwCr] had >1 record; most hd, max 5; (Atlas) breeding confirmed nr Maccan, found in 2 other squares; (CBCs) Sackville 3 yr (max 4, 1997).

History: (M) nr Memramcook, 9 dates 1932-69, 3 Nov-21 May, max 12; (B) none noted; (E) 5 dates 4 Feb-13 Jun, max 15+; (Others) at Amherst Pt MBS summer-fall 1974, 8 Nov 1975 (2) (in NSBSN); (CBCs) Sackville 3 yr (max 10, 1966).

Strait - Present Status: irregular scarce visitant; (E, others) 19 Jul 1988 (hd), Drisdelle; nr Amherst Hd (Atlas); 2 Aug 1995 (8), Noonan rd; (CBCs) Cape Tormentine 1983 (1).

Notes: virtually absent in N.S. after 1922 (Tufts 1962); recent data too few for trends, but scattered records throughout period.

White-winged Crossbill *Loxia leucoptera* [WwCr]

Fundy

Present Status: irregular visitant, breeds some years; (E) in 13 yr, noted in all months except Nov; major incursion (to exceptionally heavy regional spruce and fir cone crop) Jul 1988 to Mar 1989 (during Atlas), max 41; smaller irruptions Jul 1991-Jan 1992, max 5+; Feb-May 1995, max 4+; Jul 1998-Apr 1999, max 35, probably breeding all these yrs (much song, courtship seen); (Atlas, Distribution) widely in conifer forests 1988-89 (in all Atlas squares visited after arrival early Jul) (CBCs) Sackville 14 yr (max 451, 1988; next 215, 1991); Amherst 12 yr (max 564, 1988; next 165, 1991).

History: (M) nr Memramcook in 22 yr 1931-72; all months except Jun, Aug; incursions Dec 1931-Mar 1932, max 15; Mar-May 1935; max 10; Nov 1948-Apr 1949, max 10+; Jan 1951, max 34+; Jan-Mar 1953, max 50+; Nov 1964-Apr 1965, max 73; Nov 1969-Jan 1970, max 20; (B) "irregularly common... flocks...seen at all times of year", no evidence of breeding; (E) noted Sep

1962; Feb-Mar 1963; Dec 1964-Dec 1965, max 31; Nov-Dec 1966, max 30; (Others) also 16 Nov 1975 (4), Amherst Pt MBS (DC,=CD?, in NSBSN) (CBCs) Sackville 5 yr (max 41, 1969); Amherst 6 yr (max 31, 1964).

Strait

Present Status: irregular visitant, breeds some years; (E) in Jun-Aug, Dec, seen in all above irruptions except 1995; (Atlas) in all squares (1988), breeding in 6; (Distribution) woodlands nr Drisdelle, Anderson Sett, Stillman rd, Anns Acres, Cape Jourimain NWA, Bayfield, Oulton rd, Malden; (CBCs) Cape Tormentine 12 yr (max 285, 1988; next 117, 1991).

History: (CBCs) Cape Tormentine 6 yr (max 36, 1964).

Notes: earlier data suggested similar (irregular) variation in numbers and dates, but never the abundance seen in 1988-89; BBS indices, nearby rtes +13.1% (8), Ecozone +0.3% (35).

Common Redpoll *Carduelis flammea* [CoRe]

Fundy

Present Status: winter visitant, fairly common to abundant some years, absent to uncommon in intervening years (separate publication in press); (E,M) fall arrival, earliest 2 Nov, mean 28 Nov (12 yr); max 58+; departure, mean 25 Mar (11 yr), latest 15 Apr; (Habitats) fairly widely, at urban feeders, feeding in woodland trees or shrubs, or flying over any habitats; (CBCs) Sackville 13 yr (max 645, 1999); Amherst 12 yr (max 604, 1999).

History: (M) nr Memramcook in 29 winters 1928-29 to 1973-74; large incursions esp in 1946-47, 1948-49, 1949-50, 1952-53, 1957-58 (max 750), 1959-60, 1963-64, 1968-69, 1969-70, 1971-72; (B) "Common transient and winter visitant", 4 Oct-14 Apr, max 200 (18 Feb 1952) [in a winter when (M) saw none!]; (E) arrival, earliest 31 Oct, mean 1 Dec (5 yr), max 42, departure, mean 1 Apr (4 yr), latest 17 Apr; (CBCs) Sackville 10 yr (max 369, 1976); Amherst 9 yr (max 123, 1977).

Strait

Present Status: irregular winter visitant; (E) [few winter visits to woods except CBCs] 16 Nov-2 Apr; max 325+, 16 Dec 1991 (CBC); (Distribution) widely in woods and edges (few urban areas and feeders there), nr Cape Jourimain NWA, Bayfield, Cape Tormentine, Cape Spear, Melrose, Baie Verte, Amherst Shore Prov Park, Shinimicas R; (CBCs) Cape Tormentine 14 yr (max 14159, 1991)[exceptional movement].

History: (E) 16 Nov-23 Mar, max 30; (CBCs) Cape Tormentine 18 yr (max 223, 1975).

Changes: long-term status change not detectable among extreme inter-annual variations.

Hoary Redpoll *Carduelis hornemanni* [HoRe]

Fundy

Present Status: scarce erratic winter visitant; (E, others) only 3 known recent records (but likely many more missed among CoRe), all 1999-2000, Sackville 15 Jan (S Blaney), 10 Feb (Bunkers, E); Taylor Vill 10 Mar (A Clavette, in NB Nat).

History: (M) nr Memramcook identified (singles only) 1948-49, 1968-69, both years with large CoRe invasions; (B),(E) none detected (then); (Others) 27 Dec 1977 (1), Fenwick (R Burrows, in NSBSN).

Strait

Present Status: [none detected nr Strait].

Notes: too few records for trends; none (yet) on local CBCs; incidence seemingly less relative to CoRe than in central Canada.

Pine Siskin *Carduelis pinus* [PiSi]

Fundy

Present Status: irregularly uncommon summer resident and scarce winter visitant; (E.M. others) arrivals, earliest 3 Apr, mean 9 May (14 yr); max 30; departure erratic, last noted Aug, few Sep-Oct; noted in 5+ winters, Dec-Feb, max 35 (8 Jan 1984, Fenwick, E Coates); (Atlas) in 12 squares, breeding confirmed in 2; (Distribution) in woodlands and nr urban feeders, e.g. nr Beaumont, Sackville, Breau Crk (upper), Aboushagan rd, Jolicure, Amherst Pt MBS; (CBCs) Sackville 12 yr (max 105, 1988); Amherst 9 yr (max 134, 1988) [both max in winter with vast cone crop].

History: (M) nr Memramcook in 18 yr 1946-80; in all months but irregularly (no month with records in >6 yr) though almost daily Feb-early May 1965; max 50; (B) "Irregular transient, rare", 4 Oct-14 Apr, max 12 (13 Apr 1948); (E) all months except Jan-Feb, irregularly (no month with records in >5 yr, most Jul-Aug), but each month Apr-Oct 1965; max 110 (11 Oct 1965); (CBCs) Sackville 5 yr (max 24, 1978); Amherst 2 yr (max 8).

Strait

Present Status: irregular scarce summer resident and winter visitant; (E) 20 Apr 1992 (2), Baie Verte; 3 Jun 1988 (1), nr Poucette L; 11 Nov 2000 (150+), Amherst Shore Prov Pk; (Atlas) in 14 squares, breeding confirmed in 4; (CBCs) Cape Tormentine 7 yr (max 113, 1983).

History: (E) none found, then; (CBCs) Cape Tormentine 3 yr (max 37, 1980).

Changes: occurrence too irregular to show trends; BBS indices, nearby rtes +2.5% (12), Ecozone -1.6% (76).

American Goldfinch *Carduelis tristis* [AmGo]

Fundy

Present Status: common summer resident, irregularly scarce to fairly common winter visitant (more since 1988); (E) spring arrival [omitting years when overwintered], earliest 24 Mar, mean [-1990/1991-] 13 May/9 Apr (9/6 yr); max (Mar-May) 35+, (Jun-Oct) 13; fall departure unclear, often lingering; winter records (most at feeders) in Dec, Jan, Feb (14, 8, 7 yr), noted in all mo Dec-Apr in 5 winters from 1992-93; (Atlas, MNRS) in all squares, breeding confirmed in 6; 5 nests (all years), eggs 4-12 Aug, yg 4-21 Aug 1999 (W McNutt, N McLellan); (Habitats) widely in open and edge habitats, also flying over woods; (CBCs) Sackville 17 yr (max 476, 2000; no counts >30 before 1988, 8 yrs >130 from 1988); Amherst 18 yr (max 262, 1995; no counts >16 before 1988, 8 yrs >50 from 1988).

History: (M) nr Memramcook in 41 yr 1929-79; arrival [omitting overwintering yrs], earliest 10 May, mean 19 May (14 yr); max (Mar-May) 18, (Jun-Oct) 30; fall departure unclear, often lingering; winter records in Dec, Jan, Feb 8, 3, 2 yr, noted in all mo Dec-Mar only in winters 1964-65, 1973-74; (B) "Fairly common summer resident, common transient", 24 Mar-30 Nov, max 56 (16 Oct 1948); (E) mainly May-Oct, few later or earlier, max 28; (CBCs) Sackville 6 yr (max 30, 1966); Amherst 5 yr (max 29, 1973).

Strait

Present Status: common summer resident, few in winter (CBCs only); (E) 6 Apr-14 Oct, max 16; (Atlas, MNRS) in all squares, breeding confirmed in 11; nest, eggs 27 Jul 1986, Port Howe (J Taylor); (Habitats) widely in open or edge habitats; (CBCs) Cape Tormentine 16 yr (max 98, 2000; only 6 yrs >22, all 1988 or later).

History: (E) only scattered dates Jun-Dec, max 8; (CBCs) Cape Tormentine 8 yr (max 15, 1974).

Changes: no obvious trends except recent increased wintering, irregular numerical fluctuations throughout; BBS indices, nearby rtes 0% (14), Ecozone -1.1% (86).

Evening Grosbeak *Coccothraustes vespertinus* [EvGr]

Fundy

Present Status: marked decrease since 1990 to irregular uncommon year-round resident; (E) formerly all months, but missed several mo each in recent years; max [-1993/1994-] (May-Sep) 25/20+, (Oct-Apr) 104/35+; (Atlas) in 16 squares, not confirmed as breeding here; (Habitats) most large counts were in towns or villages with feeders, also often noted flying over woods and other habitats; (CBCs) Sackville 19 yr (max 396, 1986; only once >20 from 1995); Amherst all 20 yr (max 1272, 1995; most >300 later).

History: (M) nr Memramcook 14 Jan 1930 (6), 10 Dec 1931 (3) [1st reports in se N.B.]; in 35 yr 1941-80, not seen May-Sep until 1953, only 1 record each Jun, Jul; max [-1960/1961-] (Jan-May) 30/100, (Aug-Dec) 29/26; (B) "Fairly common winter visitant", 30 Aug-12 May, max 25; (E) no Jun or Jul records until 1965, seen all other months; max (Jan-May) 200 (15 Apr 1965), (Aug-Dec) 68; (Others) none in Sackville after 5 Jan in winter 1975-76 (ST, in NB Nat); (CBCs) Sackville 18 yr (max 104, 1976); Amherst 17 yr (max 205, 1979).

Strait

Present Status: formerly fairly common year-round resident, only one record since 1995; (E) none detected Jan-Mar, Sep, noted all other months; max [-1993/1994-] (May-Sep) 10/5+, (Oct-Apr) 25+/3+; (Atlas) in 18 squares, breeding confirmed in 3; (Habitats) mostly flying over woods or other habitats (few feeders known in Strait area); (CBCs) Cape Tormentine 17 yr (max 169, 1991, only once >16 after 1995).

History: (E) only odd birds flying over, max 2; (CBCs) Cape Tormentine 14 yr (max 31, 1973).

Changes: originally a western species, first detected in Maritimes 1913, and in e N.B. 1930 [by (M)]; increased greatly through 1970s, declined in 1990s, with decline in spruce budworm; BBS indices, nearby rtes -15.4%+ (13), Ecozone -6.5% (85).

House Sparrow *Passer domesticus* [HoSp]

Fundy

Present Status: fairly common, declining to scarce, year-round resident; (E) in all months, much scarcer since 1988; max [-1988/1989-] (Mar-May) 90/7+, (Jun-Sep) 55/25+, (Oct-Feb) 227/86; (Atlas, MNRS) in all but one square, breeding confirmed in most; 18 nests (all years), eggs 14 May-6 Jul, yg 20 May-25 Aug (var obs); (Habitats) mainly around towns and villages, at isolated farms only where livestock present; (CBCs) Sackville all 20 yr (max 940, 1987; all <200 after 1993); Amherst all 20 yr (max 1264, 1983; all <350 after 1987).

History: (M) nr Memramcook, noted in 37 yr 1930-80, in all months; max (Mar-May) 125, (Jun-Sep) 30, (Oct-Feb) 300; (B) "Rare resident except in the cultivated areas where it is common"; (E) regularly all months (but few records kept), max (Mar-May) 100, (Jun-Sep) 85, (Oct-Feb)

338; (CBCs) Sackville all 21 yr (max 970, 1978); Amherst all 20 yr (max 949, 1975).

Strait

Present Status: uncommon year-round resident; (E) seen most months (no recent records Feb, Mar, Sep), scarcer since 1982; max [-1982/1983-] (Mar-Sep) 40/6, (Oct-Feb) 30/18; (Atlas, MNRS) in all squares, confirmed in most; 4 nests (all years), yg 12 Jun-11 Aug, Port Elgin, Tidnish, Port Howe (L Carbyn, W McNutt, J Taylor); (Habitats) mostly in villages, at isolated farms only with livestock present; (CBCs) Cape Tormentine 19 yr (max 147, 1989, all <=80 after 1990).

History: (E) few notes except BBS and CBCs; max (Mar-Sep) <10, (Oct-Feb) 94; (CBCs) Cape Tormentine all 20 yr (max 408, 1973).

Changes: decrease ongoing, with pauses, since before our period, following reduction of livestock and (later) of open dumps and refuse-heaps [separate publication in prep.]; BBS indices, nearby rtes -3.7%* (14), Ecozone -4.5%* (73).

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